

ENSURING SOUND SCIENCE AT EPA

HEARING

BEFORE THE

COMMITTEE ON SCIENCE, SPACE, AND
TECHNOLOGY

HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

June 22, 2016

Serial No. 114–85

Printed for the use of the Committee on Science, Space, and Technology



ENSURING SOUND SCIENCE AT EPA

ENSURING SOUND SCIENCE AT EPA

HEARING

BEFORE THE

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

June 22, 2016

Serial No. 114–85

Printed for the use of the Committee on Science, Space, and Technology



Available via the World Wide Web: <http://science.house.gov>

U.S. GOVERNMENT PUBLISHING OFFICE

20–914PDF

WASHINGTON : 2017

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

HON. LAMAR S. SMITH, Texas, *Chair*

FRANK D. LUCAS, Oklahoma	EDDIE BERNICE JOHNSON, Texas
F. JAMES SENSENBRENNER, JR., Wisconsin	ZOE LOFGREN, California
DANA ROHRABACHER, California	DANIEL LIPINSKI, Illinois
RANDY NEUGEBAUER, Texas	DONNA F. EDWARDS, Maryland
MICHAEL T. McCAUL, Texas	SUZANNE BONAMICI, Oregon
MO BROOKS, Alabama	ERIC SWALWELL, California
RANDY HULTGREN, Illinois	ALAN GRAYSON, Florida
BILL POSEY, Florida	AMI BERA, California
THOMAS MASSIE, Kentucky	ELIZABETH H. ESTY, Connecticut
JIM BRIDENSTINE, Oklahoma	MARC A. VEASEY, Texas
RANDY K. WEBER, Texas	KATHERINE M. CLARK, Massachusetts
JOHN R. MOOLENAAR, Michigan	DONALD S. BEYER, JR., Virginia
STEPHEN KNIGHT, California	ED PERLMUTTER, Colorado
BRIAN BABIN, Texas	PAUL TONKO, New York
BRUCE WESTERMAN, Arkansas	MARK TAKANO, California
BARBARA COMSTOCK, Virginia	BILL FOSTER, Illinois
GARY PALMER, Alabama	
BARRY LOUDERMILK, Georgia	
RALPH LEE ABRAHAM, Louisiana	
DRAIN LAHOOD, Illinois	
WARREN DAVIDSON, Ohio	

CONTENTS

June 22, 2016

Witness List	Page 2
Hearing Charter	3

Opening Statements

Statement by Representative Lamar S. Smith, Chairman, Committee on Science, Space, and Technology, U.S. House of Representatives	4
Written Statement	6
Statement by Representative Eddie Bernice Johnson, Ranking Member, Com- mittee on Science, Space, and Technology, U.S. House of Representatives	8
Written Statement	10

Witnesses:

Hon. Gina McCarthy, Administrator, U.S. Environmental Protection Agency Oral Statement	12
Written Statement	14
Discussion	18

Appendix I: Answers to Post-Hearing Questions

Hon. Gina McCarthy, Administrator, U.S. Environmental Protection Agency ..	66
--	----

Appendix II: Additional Material for the Record

Letter submitted by Representative Mo Brooks, Subcommittee on Space, Com- mittee on Science, Space, and Technology, U.S. House of Representatives	82
Documents submitted by Representative Gary Palmer, Committee on Science, Space, and Technology, U.S. House of Representatives	87
Letter submitted by Representative Bruce Westerman, Committee on Science, Space, and Technology, U.S. House of Representatives	101
Letter submitted by Representative Lee Abraham, Committee on Science, Space, and Technology, U.S. House of Representatives	103
Letter submitted by Representative Randy Hultgren, Committee on Science, Space, and Technology, U.S. House of Representatives	108
Letters submitted by Representative Eddie Bernice Johnson, Ranking Mem- ber, Committee on Science, Space, and Technology, U.S. House of Rep- resentatives	110
Documents submitted by Representative Lamar S. Smith, Chairman, Com- mittee on Science, Space, and Technology, U.S. House of Representatives	114

ENSURING SOUND SCIENCE AT EPA

WEDNESDAY, JUNE 22, 2016

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
Washington, D.C.

The Committee met, pursuant to call, at 1:07 p.m., in Room 2318, Rayburn House Office Building, Hon. Lamar Smith [Chairman of the Committee] presiding.

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371

www.science.house.gov

Full Committee

Ensuring Sound Science at EPA

Wednesday, June 22, 2016

1:00 p.m. – 4:00 p.m.

2318 Rayburn House Office Building

Witness

The Honorable Gina McCarthy, Administrator, Environmental Protection Agency

**U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY**

HEARING CHARTER

Monday, June 20, 2016

TO: Members, Committee on Science, Space and Technology
FROM: Majority Staff, Committee on Science, Space, and Technology
SUBJECT: Full Committee Hearing: “*Ensuring Sound Science at EPA*”

The Committee on Science, Space and Technology will hold a hearing titled *Ensuring Sound Science at EPA* on Wednesday, June 22, 2016, at 1:00 p.m. in room 2318 of the Rayburn House Office Building.

Hearing Purpose:

The purpose of this hearing is to examine the U.S. Environmental Protection Agency’s (EPA) recent regulatory agenda, the scientific and technical justification for these regulations, and these regulations’ impacts on the American people.

Witness List

- **Hon. Gina McCarthy**, Administrator, U.S. Environmental Protection Agency

Staff Contact

For questions related to the hearing, please contact Majority Staff at 202-225-6371.

Chairman SMITH. The Committee on Science, Space, and Technology will come to order. Without objection, the Chair is authorized to declare recesses of the Committee at any time.

And welcome to today's hearing entitled "Ensuring Sound Science at the EPA."

Before beginning our hearing, however, I'd like to welcome a new member of the Science, Space, and Technology Committee, Warren Davidson from Ohio's Eighth Congressional District. He won a special election two weeks ago to succeed John Boehner.

Representative Davidson graduated from West Point and has an MBA from Notre Dame. He served in the Army in the 101st Airborne Division and as an Army Ranger. After his military service, he returned to Ohio and took a manufacturing company from 20 to 200 employees. He will be a member of the Space and Oversight Subcommittees. As the only member of the Science Committee from Ohio, he will be popular with the aerospace and energy R&D companies in his state. Please welcome Warren Davidson to the Science Committee.

I'll now recognize myself for five minutes for an opening statement and then the Ranking Member.

The Environmental Protection Agency has become an agency in pursuit of a purely political agenda rather than an agency that protects the environment. Little that the EPA has proposed would have any significant impact on the environment. But that hasn't stopped the EPA from imposing some of the most expensive and expansive regulations in its history.

These rules will cost billions of dollars, place a heavy burden on American families, and diminish the ability of American businesses to compete around the world. EPA's political agenda is to rearrange the American economy, instituting "command and control" by the Obama Administration.

This Committee's investigations have revealed an EPA that intentionally chooses to ignore good science. EPA cherry-picks the science that fits its agenda and ignores the science that does not support its position. When the science falls short, the EPA resorts to a propaganda campaign designed to mislead the public.

Today's hearing will examine this unprecedented regulatory agenda and the manner in which the EPA has used suspect science, questionable legal interpretations, and flawed analysis to justify these regulations. A glaring example is the President's so-called Clean Power Plan. This plan is nothing more than a "Power Grab" to give the government more control over Americans' daily lives.

This regulation stifles economic growth, destroys American jobs, and increases energy prices. That means costs will rise—from electricity to gasoline to food, disproportionately hurting low-income Americans. Even EPA data shows that this regulation would reduce sea level rise by only 1/100 of an inch, the thickness of three sheets of paper. The Clean Power Plan represents massive costs without significant benefits. In other words, it's all pain and no gain.

The President used this regulation as the cornerstone of his agenda at the Paris climate talks. The Paris agreement is a bad deal for the American people that will shrink our economy without

any recognized benefit. Even if all 177 countries meet their promised reductions of carbon emissions for the next 85 years, that will reduce temperatures by only one-sixth of one degree Celsius. That is incredible.

For almost two years, the Committee requested to see the data EPA uses to justify Clean Air Act regulations. The EPA's refusal to provide all the data led the Science Committee to issue its first subpoena in 21 years to retrieve that information, and we are still waiting. What is the Obama Administration hiding?

The Committee's investigation and oversight of the EPA's development of the Waters of the U.S. rule has revealed troubling and illegal agency activities. During the course of our investigation, the Committee found that the EPA engaged in inappropriate tactics to generate grassroots lobbying in support of this rule.

This past December, the Government Accountability Organization issued a legal opinion that found that EPA violated both the Anti-Lobbying and Anti-Deficiency Acts.

The EPA's relationship with activist environmental groups and use of questionable science does not end there. The Committee's investigation of the Agency's decision to embark on a premature and unprecedented decision to stop the Pebble Mine has shown that career EPA officials acted with blatant bias to determine the outcome. Also, these same officials intentionally used personal email to prevent the Committee and the EPA Inspector General from discovering the extent of their incriminating actions. This is just another unfortunate example of the EPA allowing politics rather than science to drive its agenda.

Earlier this Congress, the House approved H.R. 1030, the Secret Science Reform Act. This legislation requires the EPA to base its regulations on publicly available data. Why would the EPA want to hide this data from the American people? Because either the data is science fiction or it doesn't exist.

During the last year, several of EPA's major regulations have been halted by federal courts. These include the Agency's efforts to stop the Pebble Mine, the controversial Waters of the U.S. rule, and the Clean Power Plan. Many of these regulations trample on the constitutional rights of individuals and rely on suspect legal interpretations of the law.

I hope the Administrator will tell us today how she intends to follow the law in writing regulations and when she will provide the American people with the data and other information that this committee has requested.

[The prepared statement of Chairman Smith follows:]



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

For Immediate Release
June 22, 2016

Media Contacts: Alicia Criscuolo, Thea McDonald
(202) 225-6371

Statement of Chairman Lamar Smith (R-Texas)
Ensuring Sound Science at EPA

Chairman Smith: The Environmental Protection Agency (EPA) has become an agency in pursuit of a purely political agenda rather than an agency that protects the environment. Little that the EPA has proposed would have any significant impact on the environment. But that hasn't stopped the EPA from imposing some of the most expensive and expansive regulations in its history.

These rules will cost billions of dollars, place a heavy burden on American families and diminish the ability of American businesses to compete around the world. EPA's political agenda is to rearrange the American economy, instituting "command and control" by the Obama administration.

This Committee's investigations have revealed an EPA that intentionally chooses to ignore good science. EPA cherry-picks the science that fits its agenda and ignores the science that does not support its position. When the science falls short, EPA resorts to a propaganda campaign designed to mislead the public.

Today's hearing will examine this unprecedented regulatory agenda and the manner in which EPA has used suspect science, questionable legal interpretations, and flawed analysis to justify these regulations.

A glaring example is the president's so-called Clean Power Plan. This plan is nothing more than a "Power Grab" to give the government more control over Americans' daily lives.

This regulation stifles economic growth, destroys American jobs, and increases energy prices. That means costs will rise – from electricity to gasoline to food, disproportionately hurting low income Americans.

Even EPA data shows that this regulation would reduce sea level rise by only 1/100th of an inch, the thickness of three sheets of paper. The Clean Power Plan represents massive costs without significant benefits. In other words, it's all pain and no gain.

The president used this regulation as the cornerstone of his agenda at the Paris Climate talks. The Paris Agreement is a bad deal for the American people that will shrink our economy without any recognized benefit. Even if all 177 countries meet their promised reductions of carbon emissions for the next 85 years, that will reduce temperatures by only 1/6 of 1 degree Celsius. That is incredible!

For almost two years, the Committee requested to see the data EPA uses to justify *Clean Air Act* regulations. The EPA's refusal to provide the data led the Science Committee to issue its first subpoena in 21 years to retrieve that information. We are still waiting. What is the Obama administration hiding?

The Committee's investigation and oversight of the EPA's development of the Waters of the U.S. rule has revealed troubling and illegal Agency activities.

During the course of our investigation, the Committee found that the EPA engaged in inappropriate tactics to generate grassroots lobbying in support of this rule.

This past December, the Government Accountability Organization (GAO) issued a legal opinion that found that EPA violated both the *Anti-Lobbying and Anti-Deficiency Acts*.

The EPA's relationship with activist environmental groups and use of questionable science does not end there. The Committee's investigation of the agency's decision to embark on a premature and unprecedented decision to stop the Pebble Mine has shown that career EPA officials acted with blatant bias to determine the outcome.

Also, these same officials intentionally used personal email to prevent the Committee and the EPA Inspector General from discovering the extent of their incriminating actions.

This is just another unfortunate example of the EPA allowing politics rather than science to drive its agenda.

Earlier this Congress, the House approved H.R. 1030, "*The Secret Science Reform Act*." This legislation requires the EPA to base its regulations on publically-available data. Why would the EPA want to hide this data from the American people? Either the data is science fiction or doesn't exist?

During the last year, several of EPA's major regulations have been halted by Federal Courts. These include the agency's efforts to stop the Pebble Mine, the controversial Waters of the U.S. rule, and the Clean Power Plan. Many of these regulations trample on the constitutional rights of individuals and rely on suspect legal interpretations of the law.

I hope the Administrator will tell us today how she intends to follow the law in writing regulations and when she will provide the American people with the data and other information that this committee has requested.

###

Chairman SMITH. That concludes my opening statement, and the Ranking Member, the gentlewoman from Texas, Eddie Bernice Johnson, is recognized for hers.

Ms. JOHNSON. Thank you very much, Mr. Chairman. And before I begin my remarks, let me also welcome our new member and to tell him that I'm a product of St. Mary's and I graduated before you were born.

And let me welcome Administrator McCarthy to today's hearing and express my deep appreciation for her distinguished public service. I look forward to her testimony.

And, Mr. Chairman, the reason I'm here by myself on this side is that every other Democrat is on the House Floor awaiting a bill, because without a bill, there will be no break, the bill concerning gun violence.

Based on previous committee hearings with EPA, I have little doubt that some members will try to argue today that EPA is an overzealous, job-killing agency that needs to be reined in, namely, the rhetoric we have heard from our majority colleagues throughout this entire Congress.

Of course, the reality is far different. Administrator McCarthy, you and your dedicated agency staff have the noble and unenviable task of trying to protect human health and the environment in which we live and work from harm arising from many different sources. As such, your job is never truly done, and the ongoing nature of your work makes it easy for critics to find fault, with some arguing you're doing too much, some arguing you're doing too little.

Let us be clear. The issues you—that underlie achieving these goals are complex, necessitating equally complex rules and regulations that require commitments and sacrifice from all involved parties to achieve a common benefit, a healthy environment. I am pleased that EPA continues to rise to this challenge and has developed regulations that are balanced and progressive, further illustrating that economic prosperity and environmental protection can go hand-in-hand. They're not mutually exclusive.

Just in the last year, EPA has finalized the Clean Power Plan, the National Ambient Air Quality Standards, and its first-ever standards to reduce methane emissions from the oil and gas sector. While protecting public health, these regulations have also helped advance our efforts to limit the harmful effects of climate change. Actions taken by EPA have demonstrated America's intention to lead the world's effort to address climate change and have led to such a positive result as last December's Paris agreement.

Mr. Chairman, I hope that this committee will take the opportunity today to give serious attention to Administrator McCarthy's testimony and examine what has actually been accomplished. It is an impressive record and one that this Congress should support. Unfortunately, that has not been this committee's approach to EPA's oversight in recent years. Instead, since the beginning of the current Congress alone, this committee has sent 28 oversight requests to EPA and has launched 12 separate EPA-related investigations. EPA has already delivered more than 15,000 documents consisting of 139,000 pages to the Science Committee. I don't know where they're getting all these grocery carts to wheel it over here, with more document demands still outstanding, and I don't know

where we're storing it once it gets here. And you can multiply these numbers by three to get the number of documents and pages provided to Congress as a whole over the same period.

We're imposing an incredible burden on the hardworking men and women of EPA and spending a lot of taxpayers' dollars in the process to know—I don't know to what end. Does anybody read it when it gets here? The sum total result of all this committee oversight can be measured more in press releases than in any concrete findings that could justify the time and resources EPA has had to expend in trying to satisfy the majority's demands.

I would hope that this committee will step back from the path it is on and not continue to engage in reflexive opposition to the efforts of an agency simply trying to carry out its statutory-mandated missions. While no agency is perfect, preventing EPA from doing its job at all is not good for the country and not a good use of time. Instead of trying to score political points through efforts to undercut EPA's important work, we should work together in a productive way to advance our economy, a cleaner environment, and a healthier world for humanity.

Thank you. I yield back.

[The prepared statement of Ms. Johnson follows:]

OPENING STATEMENT

Ranking Member Eddie Bernice Johnson (D-TX)

House Committee on Science, Space, and Technology
"Ensuring Sound Science at EPA"
 June 22, 2016

Thank you, Mr. Chairman. I want to welcome Administrator McCarthy to today's hearing and express my deep appreciation for her distinguished public service. I look forward to her testimony.

Based on previous Committee EPA hearings, I have little doubt that some Members will try to argue today that EPA is an over-zealous, job-killing agency that needs to be reined in—namely, the rhetoric that we have heard from our Majority colleagues throughout this entire Congress.

Of course, the reality is far different. Administrator McCarthy, you and your dedicated agency staff have the noble—and unenviable—task of trying to protect human health and the environment in which we live and work from harm arising from many different sources. As such, your job is never truly done, and the ongoing nature of your work makes it easy for critics to find fault, with some arguing you are doing too much and some arguing you are doing too little. Let us be clear, the issues that underlie achieving these goals are complex, necessitating equally complex rules and regulations that require commitments and sacrifices from all involved parties to achieve a common benefit—a healthy environment.

I am pleased that EPA continues to rise to this challenge, and has developed regulations that are balanced and progressive, further illustrating that economic prosperity and environmental protection can go hand in hand—they are not mutually exclusive.

Just in the last year, EPA has finalized the Clean Power Plan, the National Ambient Air Quality Standards, and its first-ever standards to reduce methane emissions from the oil and gas sector. While protecting public health, these regulations have also helped advance our efforts to limit the harmful effects of climate change. Actions taken by EPA have demonstrated America's intention lead the world's efforts to address climate change and have led to such positive results as the last December's Paris Agreement.

Mr. Chairman, I hope that this Committee will take the opportunity today to give serious attention to Administrator McCarthy's testimony and examine what has actually been accomplished. It is an impressive record, and one that this Congress should support.

Unfortunately, that has not been this Committee's approach to EPA oversight in recent years. Instead, since the beginning of the current Congress alone, this Committee has sent some 28 oversight requests to EPA and has launched 12 separate EPA-related investigations. EPA has already delivered more than 15 thousand documents—consisting of almost 139,000 pages to the Science Committee—with more document demands still outstanding. And you can multiply those numbers by three to get the number of documents and pages provided to Congress as a

whole over that same period. We are imposing an incredible burden on the hard-working men and women of EPA, and spending a lot of taxpayer dollars in the process, and to what end?

The sum total result of all this Committee "oversight" can be measured more in press releases than in any concrete findings that could justify the time and resources EPA has had to expend in trying to satisfy the Majority's demands.

I would hope that this Committee will step back from the path that it is on, and not continue to engage in reflexive opposition to the efforts of an agency simply trying to carry out its statutorily mandated missions. While no agency is perfect, preventing EPA from doing its job at all is not good for the country, and not a good use of our time. Instead of trying to score political points through efforts to undercut EPA's important work, we should work together in a productive way to advance our economy, a cleaner environment, and a healthier world for humanity.

Thank you, and I yield back.

Chairman SMITH. Thank you, Ms. Johnson.

Our witness today is the Honorable Gina McCarthy, Administrator of the Environmental Protection Agency. Prior to her appointment as Administrator, she was the Assistant Administrator for EPA's Office of Air and Radiation. She also has served as the Commissioner of the Connecticut Department of Environmental Protection. During her career, which spans over 30 years, she has worked at both the state and local levels on environmental issues and helped coordinate policies on energy, transportation, and the environment.

Administrator McCarthy received a bachelor of arts degree in social anthropology from the University of Massachusetts and a master's of science and environmental health, engineering, and planning from Tufts University.

We welcome you, Administrator, and look forward to your testimony.

**TESTIMONY OF THE HONORABLE GINA MCCARTHY,
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY**

Ms. MCCARTHY. Thank you, Chairman Smith, and thank you, Ranking Member Johnson, for inviting me to testify today on EPA's regulatory efforts.

The mission of EPA is to protect public health and the environment, and the Agency's regulatory efforts further those goals. We are guided in meeting these goals by science and by the law, which serves as the backbone of each of the Agency's actions. I'll focus my comments today on providing more detail for three rules, which we believe tremendously benefit public health, as well as the environment.

Climate change is one of the greatest environmental and public health challenges that we all face. The most vulnerable among us—including children, older adults, people with heart and lung disease, and people living in poverty—may be the most at risk from the impacts of climate change. Fossil fuel-fired power plants are by far the largest source of U.S. CO₂ emissions. To address these emissions, EPA finalized the Clean Power Plan August 3 of 2015.

While the Clean Power Plan has been stayed by the Supreme Court, we are confident it will be upheld because it rests on a strong foundation of science and the law. Since the stay was issued, many States have begun to move forward voluntarily to cut carbon pollution from power plants. They've also asked EPA to continue our outreach and development of supporting information that will help guide States when the Clean Power Plan becomes effective, which we are doing while ensuring that we fully comply with the stay.

For example, last week, we proposed design details for the optional Clean Energy Incentive Program to address States' request for additional clarification as they consider options to reduce their carbon footprint. In May, EPA announced steps to further reduce methane and other harmful air pollutants from new and modified sources in the oil and gas industry, along with a critical first step in tackling methane emissions from existing sources. These steps will help combat climate change and reduce harmful air pollution.

These standards build on the Agency's 2012 rules by adding requirements that the industry reduce emissions of greenhouse gases and by covering hydraulically fractured oil wells, along with additional equipment and activities that were not covered in the 2012 rules. They also require owners and operators to find and repair leaks, which can be a significant source of emissions.

These final standards reflect significant stakeholder input and in particular provide companies a pathway to demonstrate that requirements under a State rule comparable to requirements in the final rule. This would allow sources to comply with the specific final rule requirement by complying with the State regulation.

As a first step in the regulation of existing sources of methane from the oil and gas sector, we have announced an information collection request that, when finalized, will require companies with existing operations to provide information on technologies and costs that are critical to the development of reasonable and effective regulations. In addition, EPA plans to seek voluntary information on innovative strategies that can accurately and cost-effectively locate, measure, and mitigate methane emissions. The draft ICR was published on June 3, 2016, and the first two public comments for—periods will last for 60 days.

Finally, in October 2015 the Agency completed the periodic review of the National Ambient Air Quality Standards, or NAAQS, for ground-level ozone. We have a primary standard directed at protecting public health and a secondary standard directed at protecting public welfare. Exposures to ground-level ozone can harm the respiratory system, aggravate asthma and lung disease, and is linked to premature death. These health impacts pose significant costs on Americans and can adversely affect their daily lives through missed school and work.

The two-step process of a science-based NAAQS review, followed by implementation and a system that works, that is the process that we implement. That is the process the Congress outlined. EPA and State, local, and tribal co-regulators share a long history of successfully managing air quality. For ozone, existing and proposed federal measures like vehicle standards and power plant rules and reducing—are reducing and will continue to further reduce ozone pollution nationwide. We expect that the vast majority of counties outside of California will meet the 2015 ozone NAAQS by 2025 without having to take additional steps beyond these federal measures.

So I again thank the Committee for inviting me to give a statement, as well as to be here today, and I look forward to continuing to work with you and to answer your questions on these and other EPA actions.

[The prepared statement of Ms. McCarthy follows:]

Written Statement of Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Before the
Committee on Science, Space, and Technology
U.S. House of Representatives
June 22, 2016

Chairman Smith, Ranking Member Johnson and Members of the Committee, thank you for inviting me to testify today on EPA's regulatory efforts. The mission of EPA is to protect public health and the environment, and the Agency's regulatory efforts further those goals. We are guided in meeting those goals by science and by the law which serve as the backbone for each of the Agency's actions. I will focus my comments today on providing more detail for three rules which will provide tremendous benefits to public health and the environment.

Climate change is one of the greatest environmental and public health challenges we face. The most vulnerable among us – including children, older adults, people with heart or lung disease and people living in poverty – may be most at risk from the impacts of climate change. Fossil fuel-fired power plants are by far the largest source of U.S. CO₂ emissions. To address these emissions, EPA finalized the Clean Power Plan (CPP) on August 3, 2015. While the Clean Power Plan has been stayed by the Supreme Court, we are confident it will be upheld because it rests on strong scientific and legal foundations.

Since the stay was issued, many states have begun to move forward *voluntarily* to cut carbon pollution from power plants. They have also asked EPA to continue our outreach and development of supporting information that will help guide states when the Clean Power Plan becomes effective, which we are doing while ensuring that we fully comply with the stay. For example, last week we proposed design details for the optional Clean Energy Incentive Program to address state requests for additional clarification as states consider options to reduce carbon pollution.

In May, EPA announced steps to further reduce methane and other harmful air pollutants from new and modified sources in the oil and gas industry along with a critical first step in tackling methane emissions from existing sources. These steps will help combat climate change and reduce harmful air pollution.

These standards build on the agency's 2012 rules by adding requirements that the industry reduce emissions of greenhouse gases, and by covering hydraulically fractured oil wells, along with additional equipment and activities that were not covered in the 2012 rules. They also require owners and operators to find and repair leaks, which can be a significant source of emissions.

These final standards reflect significant stakeholder input and, in particular, provide companies a pathway to demonstrate that requirements under a state rule are comparable to requirements in the final rule. This would allow sources to comply with a specific final rule requirement by complying with the state regulation.

As a first step in the regulation of existing sources of methane from the oil and gas sector, we have announced an Information Collection Request (ICR). The ICR, when finalized, will require companies with existing operations to provide information on technologies and costs that are critical to the development of reasonable regulations. In addition, EPA plans to seek voluntary information on innovative strategies that can accurately and cost-effectively locate, measure, and mitigate methane emissions.

The draft ICR was published on June 3, 2016, and the first of two public comment periods will last for 60 days.

Finally, in October 2015 the Agency completed the periodic review of the National Ambient Air Quality Standards – or NAAQS – for ground level ozone. We have a primary standard directed at protecting public health and a secondary standard directed at protecting public welfare (e.g., trees, plants, and ecosystems). Exposure to ground level ozone can harm the respiratory system, aggravate asthma and lung diseases, and is linked to premature death. These health impacts pose

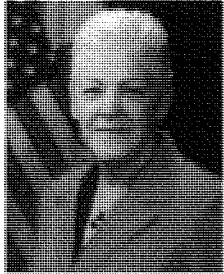
significant costs on Americans and can adversely affect their daily lives through missed school and work.

The Clean Air Act requires EPA to review the NAAQS every five years to make sure the standards continue to protect public health with an adequate margin of safety. Based on the law, a thorough review of the science, the recommendations of the agency's independent scientific advisors, and the assessment of EPA technical experts, my judgment was to strengthen the primary and secondary ozone standards to 70 parts per billion..

The two step process of a science-based NAAQS review followed by implementation is a system that works. EPA and state, local, and tribal co-regulators share a long history of successfully managing air quality. For ozone, existing and proposed federal measures like vehicle standards and power plant rules are reducing and will continue to further reduce ozone pollution nationwide. We expect that the vast majority of counties outside of California will meet the 2015 ozone NAAQS by 2025 without having to take additional action beyond federal measures.

I again thank the Committee for inviting me here today, and I look forward to your questions on these or other EPA actions.

Administrator Gina McCarthy



Gina McCarthy

Gina McCarthy is the Administrator of the U.S. Environmental Protection Agency.

Appointed by President Obama in 2009 as Assistant Administrator for EPA's Office of Air and Radiation, Gina McCarthy has been a leading advocate for common-sense strategies to protect public health and the environment.

Previously, McCarthy served as the Commissioner of the Connecticut Department of Environmental Protection. During her career, which spans over 30 years, she has worked at both the state and local levels on critical environmental issues and helped coordinate policies on economic growth, energy, transportation and the environment.

McCarthy received a Bachelor of Arts in Social Anthropology from the University of Massachusetts at Boston and a joint Master of Science in Environmental Health Engineering and Planning and Policy from Tufts University.

When she is not in D.C., McCarthy lives in the Greater Boston area with her husband and dog, just a short bike ride away from their three children, Daniel, Maggie, and Julie.

Chairman SMITH. Okay. Thank you, Administrator McCarthy. And I'll recognize myself for questions.

The first is this. The nonpartisan Energy Information Administration at the Department of Energy has found that the Clean Power Plan will reduce economic growth, increase electricity costs, and result in almost 400,000 jobs lost over the next 15 years. And all this is with very little impact on climate change itself. So why has the Obama Administration imposed this regulation on the American people?

Ms. MCCARTHY. Well, let me just be clear if I could, Mr. Chairman. Our impact analysis that went with the rule indicated just the opposite of what you're saying.

Chairman SMITH. Right. So you—

Ms. MCCARTHY. Let me answer the question—

Chairman SMITH. Okay. But—so you disagree with the Energy Information Administration of the Department of Energy?

Ms. MCCARTHY. Well, it depends on what you're looking at, sir. I don't have it—

Chairman SMITH. Okay—

Ms. MCCARTHY. —in front of me, but I will tell you that—

Chairman SMITH. —real quickly, let me repeat my question—

Ms. MCCARTHY. Okay.

Chairman SMITH. —to make sure you—

Ms. MCCARTHY. Sure.

Chairman SMITH. —address it. They said it would reduce economic growth, increase electricity cost, and cost almost 400,000 jobs in the next 15 years. This is the Department of Energy. This is this Administration. This is the Energy Information Administration. So do you agree or disagree with their conclusions?

Ms. MCCARTHY. Well, I believe that we have designed this rule, and it's showing out already that we are following the energy markets. We are not changing the direction in which the market is heading, and as a result, you're going to see this being delivered well—with additional short—small reduction over a very short period of time. You're going to see short reductions, but over the length of this rule, you are going to see significant reductions in greenhouse gases. But also, you're going to see cost savings on the energy side.

Chairman SMITH. Okay. It's clear you disagree with the Administration. I happen to think they're probably less biased than the EPA, and I think their conclusions that were reached probably represent closer to the facts, but we're going to have to agree—

Ms. MCCARTHY. Well, I'm—

Chairman SMITH. —to disagree on that.

Ms. MCCARTHY. —happy to take a look at it, Mr. Chairman. I don't know what the context of their analysis was.

Chairman SMITH. Okay. You are not familiar with the Energy Information Administration or you are?

Ms. MCCARTHY. Very much so but—

Chairman SMITH. Okay. Have you read their—

Ms. MCCARTHY. But they do—

Chairman SMITH. —report on the Clean Power Plan?

Ms. MCCARTHY. In the past.

Chairman SMITH. Okay. And you disagree with that?

Ms. MCCARTHY. I don't know what you just read, sir. I don't know which one it is——

Chairman SMITH. Okay.

Ms. MCCARTHY. —so I'm happy to take a look.

Chairman SMITH. Well, again, reduce economic growth, increase electricity costs, and cost 400,000 jobs——

Ms. MCCARTHY. Is——

Chairman SMITH. —over the next 15 years.

Ms. MCCARTHY. That is exactly opposite of what we believe will happen based on our——

Chairman SMITH. Okay.

Ms. MCCARTHY. —independent analysis.

Chairman SMITH. It's nice to have the Administration at war with itself. I'll go to my——

Ms. MCCARTHY. No——

Chairman SMITH. —next question. If the Paris climate agreement involving 177 countries was completely implemented, okay, the entire climate agreement completely implemented, you have distinguished scientists including Bjorn Lomborg and 27 other top climate scientists, including three Nobel laureates, who have concluded that the reduction in global warming would only be one-twentieth of a degree Celsius by 2030, one-sixth of a degrees Celsius in the next 85 years. It sounds to me like if they're anywhere close to being right, then this Paris Climate Agreement is almost all pain and no gain. Why is that not the case?

Ms. MCCARTHY. Well, no, sir. The Paris agreement was an incredible achievement that changed the direction of the world and is going to ultimately——

Chairman SMITH. Do you disagree that——

Ms. MCCARTHY. —allow us to have a better climate——

Chairman SMITH. Do you think the Paris Climate Agreement will have a greater impact on climate change than I just said and that these 27 scientists said?

Ms. MCCARTHY. I think it sets us on it course to work together on a planetary scale to address the biggest——

Chairman SMITH. Well, I understand——

Ms. MCCARTHY. —environmental challenge we face.

Chairman SMITH. —as far as the actual impact on climate change, do you disagree with these 27 top——

Ms. MCCARTHY. I disagree with the way in which——

Chairman SMITH. —climate scientists?

Ms. MCCARTHY. —you're characterizing it, Mr. Chairman. With all due respect, it is a tremendous step in the right direction.

Chairman SMITH. No, no——

Ms. MCCARTHY. The numbers you're talking about——

Chairman SMITH. Those are——

Ms. MCCARTHY. —are actually steps——

Chairman SMITH. I know those are wonderful words——

Ms. MCCARTHY. —to be taken by 2020.

Chairman SMITH. I'm talking about quantifying the impact. The impact is one-sixth of a degree over the next 85 years if every country, all 177 countries——

Ms. MCCARTHY. There is not a single——

Chairman SMITH. —implement it——

Ms. MCCARTHY. Sir, there's not a single country that signed that expecting that the 2020 goals would get us where we need to be.

Chairman SMITH. Okay.

Ms. MCCARTHY. It is a step in that direction, and it should provide us an opportunity—

Chairman SMITH. But you don't disagree with the conclusion—

Ms. MCCARTHY. —to get the necessary reductions.

Chairman SMITH. —of these scientists as far as the climate agreement goes in Paris—

Ms. MCCARTHY. I—

Chairman SMITH. —as it stands right now?

Ms. MCCARTHY. The agreement itself was designed as a step forward.

Chairman SMITH. I understand.

Ms. MCCARTHY. It was not designed to produce all of the actions—

Chairman SMITH. I understand but—

Ms. MCCARTHY. —that will be necessary to address—

Chairman SMITH. —as far as the step forward goes—

Ms. MCCARTHY. —the challenges.

Chairman SMITH. —the step forward is as I described it.

Ms. MCCARTHY. Well, sir, you can't make a marathon without getting across the starting line.

Chairman SMITH. Okay. It's clear you don't disagree with their conclusion. You may think it's a beginning, but you can't disagree—

Ms. MCCARTHY. I don't even know what—

Chairman SMITH. —with their conclusion?

Ms. MCCARTHY. —their—the context of their conclusion is.

Chairman SMITH. Again—

Ms. MCCARTHY. What I do know, sir, is that—

Chairman SMITH. —it's reducing global warming one-sixth of a degrees Celsius over the next 85 years.

Ms. MCCARTHY. It's better than we were before, and it's only the first step. We've made a—

Chairman SMITH. One-sixth for all—

Ms. MCCARTHY. We've made a long-term commitment to get to the reductions that are necessary—

Chairman SMITH. It all sounds to me—

Ms. MCCARTHY. —to stabilize the—

Chairman SMITH. —like it's all pain and no gain, and I think that's—why punish the American people if we're not going to have any significant impact on climate change?

Ms. MCCARTHY. We actually don't think it's punishment. I think it's about leadership and I think it's—

Chairman SMITH. Let me tell you, increase electricity costs, slow economic growth, and lost jobs is punishment—

Ms. MCCARTHY. Our analysis shows that—

Chairman SMITH. —for the American people.

Ms. MCCARTHY. —that is not the case with the Clean Power Plan. It provides—

Chairman SMITH. All right.

Ms. MCCARTHY. —ultimate flexibility—

Chairman SMITH. Okay. It's you against all these other scientists——

Ms. MCCARTHY. —and reduced energy.

Chairman SMITH. —and that's okay. My next question is this. With out major environmental regulations, we have seen reduction in carbon emissions in the United States through technological breakthroughs. For example, in the last 11 years there's been a 12 percent reduction in energy-related carbon emissions in the United States.

Rather than impose costly government mandates and interfere with free market, why not encourage more technological advances that will reduce the cost of alternative fuels and so encourage their use? In other words, you're not going to convince developing countries to go to alternative forms of energy if you don't reduce the cost. It's not good for them; it's not good for their economy. So why not allow technology breakthroughs to solve the problem as they have throughout the history of the United States? Why engage in these government mandates to skew the market, cost jobs, and are burdensome to the American people?

Ms. MCCARTHY. Well, sir, I don't think we're actually skewing the market; I think we're following it. And what I think the Clean Power Plan——

Chairman SMITH. Government mandates don't skew the market——

Ms. MCCARTHY. —is designed——

Chairman SMITH. —and subsidies don't skew the market?

Ms. MCCARTHY. Well, actually, we're following the direction of the market because renewable energy is actually becoming more and more cost-effective.

Chairman SMITH. Well——

Ms. MCCARTHY. It is competing——

Chairman SMITH. —why not let the market work?

Ms. MCCARTHY. —in the market itself.

Chairman SMITH. Why not—why impose the regulation? Why not let market work? It's going the right direction.

Ms. MCCARTHY. The idea is to look at this as a long-term venture out to 2030 so that those that want to invest in innovation will have certainty that their investments will pay off.

Chairman SMITH. Okay. I think we're a democratic country, and the free market, if allowed to work, will work as it has been working. I'm just sorry that government wants to interfere with that. And that's going beyond my time by a minute. And the Ranking Member from—is—the Ranking Member is recognized for her questions.

Ms. JOHNSON. Thank you, Mr. Chairman.

Madam Administrator, it has been said that Congress is one of the few places where you can find the rhetoric of climate change denial alive and well. While that is disheartening, I'm reminded that these views are not representative of the majority of Americans. What kind of response have you seen from people as you travel the country discussing EPA's work? And have you found more support and positive feedback than you do here in this room?

Ms. MCCARTHY. Well, I do find that, as I travel, there is tremendous concern about the impacts that are already being felt by cli-

mate change. People know it's happening and they're feeling it and they're afraid it. They're worried about the safety of their communities and they're worried about the future of their children and they're worried about the public health impacts that are so well-defined and well-understood.

And so things are changing. They're looking for us to take action, but they're looking for us to take reasonable action, action that respects our energy system, that follows it, that doesn't increase energy costs and that provides opportunities for the jobs of the future.

That is what we are doing today. That's what the Clean Power Plan is all about. It's not trying to redesign the system. It's trying to understand that right now today our energy system is in transition, and it's moving towards a clean energy system. And we know internationally that the countries that lead in this transition are going to be the ones that come ahead.

Ms. JOHNSON. Thank you. Environmental challenges are often most severe among communities of color. The NAACP highlighted this fact stating that African-American children are twice as likely to die of asthma and three times more likely to be admitted to the hospital for asthma attack while African-American adults are more likely to die of lung disease while being less likely to smoke.

The NAACP went on to applaud the EPA's progress in setting a stronger standard but echoed the call of every major health organization by stating that our children, families, and communities deserve better than the new standard.

The NAACP also criticized the National Black Chamber of Commerce for citing a widely debunked report to justify claims of economic harm to communities of color as a result of these regulations.

What bearing do you at EPA and EPA's activity have on the issue raised by the NAACP? And how can we prevent the most vulnerable among us from bearing a disproportionate economic and public health cost of environmental inaction?

Ms. MCCARTHY. Well, Ranking Member, I'm glad that you mentioned it because I think we've done a wonderful job nationally in looking at these issues, and it's one community and one vulnerable child at a time, and we have to be focusing our efforts in that direction.

We know that our new ozone standard is a standard that was designed by law to be protective of public health with an adequate margin of safety. That means that ozone levels will be coming down, and those ozone levels reducing will mean less asthma attacks for our children. It will mean more protection for those that are most vulnerable.

So we are following the science in providing the right standards and working with States to make sure that they continue to make progress moving down our air pollution, which they have for decades worked with us to achieve. And so it's an exciting opportunity.

Now, on the Clean Power Plan, we wanted to make sure that while we gave States ultimate flexibility that we provided incentives for investment in low-income communities that most need it for opportunities for renewable energy and energy efficiency. So we developed an incentive program in there. It's voluntary, but that's what our Clean Energy Incentive Program is. It's to make sure

that every community and every vulnerable individual has an opportunity to invest in the technologies of the future that are going to keep our planet stable and also protect public health.

Ms. JOHNSON. Thank you. Opponents of the new ozone standard of 70 parts per billion often criticize EPA for setting it before all areas of the country have attained the new—the old standard of 75 parts per billion, accusing EPA of shifting the goalpost. Why is it important that we build on existing improvements to air quality and not wait until the old standards of 75 parts per billion be attained by more parts of the country? And how does setting a new standard encourage additional action to achieve attainment? To those who claim attainment efforts will prove too costly, how would you characterize the cost of inaction to this issue?

Ms. MCCARTHY. Well, the cost of inaction is borne out by health impacts for our kids and our elderly, and we can show that this is not—is an incredibly cost-effective step forward that will save thousands of lives. And so it's important in and of itself.

But the important thing to remember about air pollution is over the past 40 years we have been able to reduce air pollution 70 percent while the economy tripled. We are not raising our ability to protect public health on the backs of workers. We are growing jobs at the same time in this country, and we can do both.

But one thing—and one statistic always sticks out at me is this is an incremental step forward. We work with States to incrementally reduce air pollution, and of all of the areas that were designated nonattainment in 1997 when we set a new standard, 95 percent of them have achieved that standard already. So it is a steady march forward in which we work together with States and local communities for the benefits of our kids, for the benefits of public health, and we've been able to do that without a detriment to business or jobs. That's how EPA does its job. That's how it was designed to happen.

Ms. JOHNSON. Thank you very much. My time is—my time really hasn't expired. I'm going to give you back 20 seconds.

Chairman SMITH. Thank you, Ms. Johnson. Well, yield to me? Thank you, Ms. Johnson.

The gentleman from Oklahoma, Mr. Lucas, is recognized.

Mr. LUCAS. Thank you, Mr. Chairman. Administrator McCarthy, the Cancer Assessment Review Committee report on glyphosate published on April 29 and then removed on May 2 came to the same conclusion as other global regulatory bodies about the safety of a vital agricultural tool. The report also addressed several deficiencies with the International Agency for Research on Cancer's monogram from early 2015, which, as you know, came to a different conclusion on glyphosate than your agency's report.

I guess my first question, the Cancer Assessment Review Committee, they found that glyphosate is not a carcinogenic, is that correct?

Ms. MCCARTHY. That—not—say that again. Not likely.

Mr. LUCAS. Found that glyphosate is not carcinogenic.

Ms. MCCARTHY. Not likely is I think the term that we use—

Mr. LUCAS. Okay.

Ms. MCCARTHY. —but I understand your point.

Mr. LUCAS. Was this report marked final and signed by the scientists at the Cancer Assessment Review Committee who completed the report?

Ms. MCCARTHY. Well, my understanding of the Cancer Assessment Review Committee is they do a memo. They do about 40 of these registration reviews. It's pretty mundane. It's routine work for the Agency, although important work. So my understanding is that that memo was done. It was unfortunate that it was mistakenly released by a contractor because it is still in review in the Agency. And when we have an issue that's important—as important as glyphosate is to the agricultural community, we want to make sure that we get the science right.

Mr. LUCAS. But, Administrator, was the report dated October 1, 2015?

Ms. MCCARTHY. I don't have exact date in front of me, sir, but that's reasonable.

Mr. LUCAS. My understanding is the document that was placed online—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —on the 29th—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —had been dated the October before, some months earlier, and I'm under the general impression that it was signed out to the—the memo was by the scientist—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —who participated in it?

Ms. MCCARTHY. Yes.

Mr. LUCAS. So why did—and this begs the question, why did EPA wait several months to post the report marked final, then remove it from the Web site a few days later with no immediate explanation?

Ms. MCCARTHY. Well, because it's—

Mr. LUCAS. Could you expand on that?

Ms. MCCARTHY. Yes. It's just—it's a step in the process towards the Agency's decision, and we know that it will ultimately be made public. The question is we don't want to confuse the public with interim decisions being made.

And in this case—and I really want to be very clear here—the—what we call the CARC, which is our committee, is an internal committee. But very often, no less than 10 or 15 percent, maybe five percent at the least, there is—there's an issue that's large enough that it warrants larger agency review. And this was one of those occasions.

It is a big deal, sir, to deal with glyphosate both in terms of its international context and the importance it has for U.S. agriculture, so we have expanded that—

Mr. LUCAS. So, Administrator—

Ms. MCCARTHY. —and it's one step in the process, but it's not a final decision—

Mr. LUCAS. But, Administrator—

Ms. MCCARTHY. —for the Agency.

Mr. LUCAS. —if it was not a final document, why was it marked final?

Ms. MCCARTHY. Yes.

Mr. LUCAS. Why was it signed out in the fashion it was?

Ms. MCCARTHY. Well, it was a final review from that that particular committee. It was not a final agency action, and if you look at it—

Mr. LUCAS. But you understand why those of us who follow—

Ms. MCCARTHY. Yes, we do.

Mr. LUCAS. —very carefully the actions that your agency takes—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —and all of the oversight work you have, the impact of these decisions is dramatic—

Ms. MCCARTHY. Well, it was—

Mr. LUCAS. —in certain areas.

Ms. MCCARTHY. —it was extremely unfortunate. It was released with a number of other documents that weren't yet ready for public viewing. It will be ready, and I don't want it to be—

Mr. LUCAS. But you would understand why there would be—

Ms. MCCARTHY. —any signal other than we're still in the middle of a decision

Mr. LUCAS. —some concern from those of us—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —who watch the process—

Ms. MCCARTHY. I get it.

Mr. LUCAS. —that perhaps a decision made in regular order, in regular process by the people of responsibility who understand—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —the issues had been overruled—

Ms. MCCARTHY. Yes. Yes.

Mr. LUCAS. —somewhere else on high and backed up—

Ms. MCCARTHY. Right.

Mr. LUCAS. —and that would be a grave concern—

Ms. MCCARTHY. Well, there's two—

Mr. LUCAS. —if we were putting a—

Ms. MCCARTHY. Yes.

Mr. LUCAS. —post-science decision that changed the outcome of the scientific work that had gone into the initial decision.

Ms. MCCARTHY. This—

Mr. LUCAS. You can see the concern.

Ms. MCCARTHY. Yes. There's two things that are very unfortunate here. One is our Cancer Assessment Review Committee does great work. It is not an indication when we take their memo off the table that we don't appreciate it and agree with it. It was a question of making sure that we had fully articulated that in the decision-making process.

Mr. LUCAS. That—

Ms. MCCARTHY. That's not the end of the line of the decision. That's all.

Mr. LUCAS. That said, Administrator, when will we see the final report?

Ms. MCCARTHY. We're—given that it's raised concerns, we're going to try to get it out as soon as possible. I know we always try hard, but I'm—this fall should be the likely—

Mr. LUCAS. Raised concerns within the scientific community doing the review or raised concerns from those that—

Ms. MCCARTHY. No, just——

Mr. LUCAS. —oversee the scientific community?

Ms. MCCARTHY. —from yourself who would interpret this as some kind of a backing up or not in agreement with a final agency action. The problem we have here is this was not a final agency action. It was a step in the process. And we appreciate the work of the Committee——

Mr. LUCAS. But these are the kind of things, Administrator——

Ms. MCCARTHY. Yes.

Mr. LUCAS. —that causes such doubt and concern——

Ms. MCCARTHY. Yes.

Mr. LUCAS. —in the public and in Congress and in the entities that are affected.

Ms. MCCARTHY. Well, I don't want it to send a signal——

Mr. LUCAS. This is not good for anyone——

Ms. MCCARTHY. Yes.

Mr. LUCAS. —to do it this way.

Ms. MCCARTHY. You should not take it as a signal that the decision—that any decision has been made or what direction that decision will go. The committee offered us wonderful information. We just need to make sure that it's as robust as it needs to be for a decision as big as this.

Mr. LUCAS. And now the extra attention will be incredible when the final report——

Ms. MCCARTHY. I'm sure.

Mr. LUCAS. —does come out.

Ms. MCCARTHY. Well, I think it was always——

Mr. LUCAS. I yield back, Mr. Chairman.

Ms. MCCARTHY. —very important, sir, and I appreciate it.

Chairman SMITH. Thank you, Mr. Lucas.

The gentleman from California, Mr. Rohrabacher, is recognized.

Mr. ROHRABACHER. Thank you for being with us today and——

Ms. MCCARTHY. Thank you, sir.

Mr. ROHRABACHER. —we—you were aware that this was going to be a tough hearing, and thank you for being here and sharing your views with us——

Ms. MCCARTHY. I'll do my best.

Mr. ROHRABACHER. —on this issue.

Ms. MCCARTHY. Thank you.

Mr. ROHRABACHER. So now I'll have my shot.

Ms. MCCARTHY. Okay.

Mr. ROHRABACHER. Okay. First of all, let me ask you this. Do you expect that the public and the people of this country need to comply with the orders of the EPA where you are exercising your lawful authority? Do you expect them to do so in a timely manner?

Ms. MCCARTHY. To the best of their ability. Often, that doesn't happen——

Mr. ROHRABACHER. Right.

Ms. MCCARTHY. —and we discuss——

Mr. ROHRABACHER. All right.

Ms. MCCARTHY. —what we need to do to work together.

Mr. ROHRABACHER. But there are several cases in which people were not complying, and EPA was very tough on them in your ad-

ministration. There are those cases as well. Let me just note that we have lawful authority on this side of the aisle to it——

Ms. MCCARTHY. Yes, sir.

Mr. ROHRABACHER. Here we are. We have legislative authority to oversee what our federal tax dollars are using. Yet since August of 2015, we have sent ten letters to you. The letters contained 35 total requests, and we got four replies back. And of those four replies, only one was fully responsive. The other seven were only partially responsive to the requests that were made.

So we have 27 requests, more than 77 of all of our requests for information in pursuing our lawful authority to oversee what you're doing and getting a good understanding and protecting the American people's right to know these things, 77 percent were not answered, six out of ten letters have received no reply at all. Do you consider that compliance and—with the lawful authority, our lawful authority as a legislative oversight of your agency?

Ms. MCCARTHY. Well, sir, I have tremendous respect for the job of this committee, and I will assure you that we are doing everything we can to respond to your request in a timely way.

Now, I know that we have—we continue to do searches that are necessary. It is very challenging, the amount of requests that we receive from this committee and others. We do our best to make sure that everyone gets the—every gets the attention it needs, and will do our best to respond——

Mr. ROHRABACHER. Okay.

Ms. MCCARTHY. —to the outstanding letters——

Mr. ROHRABACHER. Let me just note——

Ms. MCCARTHY. —inasmuch as we can.

Mr. ROHRABACHER. —that if this was just you and we had an established working relationship with you and saw the tough job that you have, that might—we might actually take a different approach to this and give benefit of the doubt, repeated benefit of the doubt

Ms. MCCARTHY. Yes.

Mr. ROHRABACHER. —over the years of not getting the type of cooperation we need. But this seems to be a pattern throughout this Administration, the idea of cover-ups, of inadequate professionalism and the job that needs to be done.

I mean, there's an example here of this coal mine and several other cases like this where the EPA delayed in actually notifying people about toxic spills, and yet when we make requests for information, we don't get replies back. We're trying to protect the people and here you're saying, well, we're just doing our best.

We see this in other agencies and departments throughout this Administration. I think it comes from the top where there's an arrogant disregard for legislative authority. The President comes to give a State of the Union and says I'm going to do this on my own. If I don't get my way, it's the highway.

And then we come across things where we don't get even our request for information answered. I think that this does not speak well of the Administration, and I would hope that you could do better. I think that this is unacceptable. We need to make sure that if the EPA's requests are going to be taken seriously by the American people because that's your lawful authority, our lawful authority to oversee this and get the answers on why this—why we had

this spill—and by the way, there's a judge actually backed this observation up where didn't he recently say that the EPA may have lied in court to—and demonstrated a total lack of commitment to carrying out the law? This was your Administration now that a member of the judicial branch is pointing out is just unacceptable.

Ms. MCCARTHY. Well, sir, I—no one would like to produce these documents more quickly than I would because I have great faith in the way in which EPA in this Administration has followed the science and the law. I want to be able to provide you information as quickly as I can. And, you know, we'll do our best. The Gold King Mine incident was—unfortunate is probably too weak a word in this issue. It was a disaster. We have been doing our best to take full responsibility for that. I am full well aware that while we notified people in advance so that efforts could be taken to make sure that contaminated water didn't get into farm fields, it does not excuse the fact—

Mr. ROHRABACHER. Well—

Ms. MCCARTHY. —that our notice process wasn't up to snuff.

Mr. ROHRABACHER. —you can't say you're trying to protect farm fields by not letting the information out.

Ms. MCCARTHY. I understand that.

Mr. ROHRABACHER. And let me just say that this type of stonewalling of mistakes and things and we're only trying to do our best, it just doesn't cut it when we see this happen so often in this Administration.

Ms. MCCARTHY. All right, sir.

Mr. ROHRABACHER. Thank you very much.

Chairman SMITH. Thank you, Mr. Rohrabacher.

And the gentleman from Texas, Mr. Neugebauer, is recognized.

Mr. NEUGEBAUER. Well, thank you, Mr. Chairman. Thank you, Administrator, for being here today.

Ms. MCCARTHY. You, too.

Mr. NEUGEBAUER. As you know, as the Ranking Member pointed out, we've had numerous hearings about all the EPA regulations, both those proposed and finalized. And many of the witnesses that testified before this committee have consistently testified that EPA's regulatory agenda will harm the American economy. And so I'm concerned about that regulatory agenda that will regulate the United States into some kind of economic irrelevance.

Now, the Clean Power Plan is a good example of EPA's command-and-control mentality. I don't think this is environmental protection, but I think it's unconstitutional usurpation of power in the name of environmental activism. Even President Obama's constitutional law professor Lawrence Tribe stated that "EPA is attempting an unconstitutional trifecta, usurping the prerogatives of the states, Congress, and the federal courts all at once, but burning the Constitution of the United States, about which I deeply care, cannot be a part of national energy policy." This is not necessarily a very conservative jurist.

So the question I have, Administrator McCarthy, does the Constitution give the EPA the right to ignore the will and intent of Congress and carry out its own agenda?

Ms. MCCARTHY. No, it requires us to actually follow the law and follow science.

Mr. NEUGEBAUER. Well, numerous states, including my home state of Texas, for example, disagree with your analysis. In fact, the Supreme Court has placed a stay on the rule until it's examined whether it's constitutional or not—

Ms. MCCARTHY. That's correct.

Mr. NEUGEBAUER. —is that correct?

Ms. MCCARTHY. That is correct.

Mr. NEUGEBAUER. Yes. So citizens and businesses in my home state are very concerned about the increase in electricity prices that will occur when the Clean Power Plan goes into effect. And I think you said a while ago that you believe that the cost of electricity—did I hear you say you think the cost of electricity is going down with the Clean Power Plan?

Ms. MCCARTHY. I—by 2030 our estimate is that it will be—an average family will actually reduce their energy bill annually by \$80. Yes, I—yes, that's what you heard me say.

Mr. NEUGEBAUER. Well, I don't believe that and I would yield to the Chairman, but, Mr. Chairman, I don't believe that anybody has testified before this committee that that the cost of electricity is going down, have they?

Chairman SMITH. That's correct/

Mr. NEUGEBAUER. Yes. So I think we've got EPA with one perspective and we've got the entire utility industry with another perspective, and not just the utility industry but other outside groups that disagree with that. So the question is can you furnish this committee with a cost-benefit analysis that you did that shows that the cost would go down? And have you shown that report to—

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —others to validate your finding?

Ms. MCCARTHY. Our regulatory impact analysis is part of the final rule, and I'm happy to forward that if the Committee does not have it.

Mr. NEUGEBAUER. So the question is sometimes I think folks on our side of the aisle get painted with the perspective we don't care about the environment. We care very much about the environment. But we care very much about making sure, as the gentleman from California said, being good stewards of the taxpayers' money and making sure that the policies that are implemented in the Administration are policies that are in the best interest of the country. And I think one of the things that—and as the Chairman was pointing out, even if you employ all of these certain practices that are put in place, we're talking about making an infinitesimal change in the environment.

And so I think when you look at—and I haven't done a cost-benefit analysis, but when you say it's almost as thin as a sheet of paper and you're going to cost billions and billions of dollars, I don't know how that's in the best interest of the American people.

Ms. MCCARTHY. Sir, that issue has been directly addressed by the Agency and backed up by the Supreme Court in its decisions. It was very clear that climate change requires a multiple of actions to be taken in order to address the changing climate and the challenge that that poses to the future of our communities, our kids, and our planet. No one action is going to resolve it, but inaction

is going to preclude us from taking care of this very real and imminent danger. And in the——

Mr. NEUGEBAUER. Well, I'm going to stop you there. I mean, here—I think what we have to kind of put this down in perspective, you know——

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —we can talk about numbers and billions and stuff. You know who I think about? I think about that little single mom——

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —that's raising two kids that's working two jobs and she's worried about whether she's going to be able to pay her electric bill or she's going to be able to buy gasoline to get to work to support her family and to make sure if those kids need to go to the doctor that they're able to do that.

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. And what we're saying is we're willing to sacrifice those people for some long-term goal that we don't even have a clear picture of whether it's actually achievable, number one, and secondly, whether it's beneficial. And what do you say to her?

Ms. MCCARTHY. I think we're both looking at protecting the very same people from the very same concerns that you articulated. There is nothing in the rules that we have done on the Clean Power Plan that is going to threaten that woman. What's going to threaten her and her family is no action on climate and other efforts that we can take to reduce pollution that will allow them to have a healthy and viable future.

And we can do this. It is already happening, sir. The very transition that we are looking at in every State and every region that said let's look at how we tackle this problem together, every State and every region is seeing a shift to clean power. Texas is perhaps the largest producer of renewable energy in the country.

Mr. NEUGEBAUER. My district is.

Ms. MCCARTHY. They are not—well, you're not doing it because of the Clean Power Plan. You're doing it because the market demands it. Likewise, the Clean Power Plan is underpinning that to ensure that those investments continue and that market continues to move in the right direction——

Mr. NEUGEBAUER. But I don't think we need the EPA——

Ms. MCCARTHY. —for those kids.

Mr. NEUGEBAUER. As the Chairman said, why don't we let the market determine it? The reason that I have more wind in my district than any place in the country, one is because of some very attractive tax credits——

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —quite honestly, but the other is——

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —you know, obviously, we've got a little wind out there. But I think the perspective that I'm saying is——

Ms. MCCARTHY. Yes.

Mr. NEUGEBAUER. —that the mandates—I don't have very many calls of people say, boy, the air sure is dirty here today. Would you do something about it? But I do have a lot of calls in my office with

people calling and saying, you know, I can't afford my electricity bill, I can't afford the gasoline. I mean, those——

Ms. MCCARTHY. Well, I——

Mr. NEUGEBAUER. —are the calls that I get.

Ms. MCCARTHY. I'm happy to share——

Chairman SMITH. Thank——

Ms. MCCARTHY. —with you some of the calls that—the information and the communication we get from some of the communities in Texas and other places. But I appreciate your point of view, sir, and I want you to know that we are thinking about those kids, we're thinking about jobs, we're thinking more than about climate change when we design our rules.

Chairman SMITH. Thank you, Mr. Neugebauer.

And the gentleman from Alabama, Mr. Brooks, is recognized for his questions.

Mr. BROOKS. Thank you, Mr. Chairman.

On August 31, 2015, I along with 17 other members of this committee sent you a letter regarding concerns about the ozone National Ambient Air Quality Standards that were in the process of being finalized. The final ozone rule was issued in October of last year. Mr. Chairman, I'd like to enter into the record our letter dated August 31, 2015.

Chairman SMITH. Without objection, so ordered.

[The information appears in Appendix]

Mr. BROOKS. Several committee hearings in 2015 raised serious doubts about the underlying science used to justify the proposed ozone rule. You acknowledged two distinct sets of scientific studies used during the rulemaking process. The first set contains large population studies which you yourself acknowledged as being unreliable. The second set are human exposure studies of which there are only four such studies that the EPA and the Clean Air Scientific Advisory Committee both reviewed.

In particular, the committee's letter raised concerns that the proposed ozone rule was based on a single study by Schelegle of just 31 individuals, 31 individuals, a remarkably small and unreliable sample size. More disconcerting was the inability of the Schelegle study to replicate key results from two other studies, as we clearly stated in this August 25 letter. In other words, your entire rule depends on one study. Administrator McCarthy, do you agree that the basis for the ozone rule relies heavily on this one study by Schelegle?

Ms. MCCARTHY. Well, actually, sir, I believe it's part of a weight-of-evidence approach where we have thousands of studies that have been generated over decades. Ozone is perhaps the——

Mr. BROOKS. Okay. That's not answering my question. Please just answer my question. Do you agree that the ozone rule relies heavily on this one study by Schelegle, yes or no?

Ms. MCCARTHY. No, sir, I don't think in an extraordinary way. I think it relies on the entire weight of the evidence before us. There are a thousand new studies that were considered in the latest ozone standard.

Mr. BROOKS. As a party of this committee's oversight and investigations, we requested documents concerning the ozone rule from the Environmental Protection Agency. The Agency has produced

documents to the Committee with massive amounts of redactions. Administrator McCarthy, these are apparently PowerPoint presentations titled "Ozone NAAQS Option Selection Briefing and Ozone NAAQS Information Briefing." Almost the entirety of it is redacted as nonresponsive to the committee requests.

So let me just show you some of the stuff that we got. We've got 65 pages of responses, nonresponsive, nonresponsive, nonresponsive, nonresponsive, 65 pages. I would submit to you that these redactions are unacceptable, and I'll ask you today if you will agree to provide all of these documents to the Committee without any redactions?

Ms. MCCARTHY. Sir, we have provided this committee and in the docket of our ozone standard deliberations, it is—probably would stand this tall if I brought it in. You've got an integrated—

Mr. BROOKS. That's fine. I'm asking are you going to send to this committee the documents we have requested? I'm not concerned about documents you have sent. I'm concerned about documents that have not been sent.

Ms. MCCARTHY. As far as I know, we—

Mr. BROOKS. Will you commit to—

Ms. MCCARTHY. As far as I know we have provided you full response, but I will go back and make sure that we have done that. Redactions are common when it's deliberative material. It protects our ability to work inside to make sure we do our jobs.

Mr. BROOKS. And so to the extent then that there are materials that have not been submitted, you're telling this committee today that you will submit them?

Ms. MCCARTHY. Only if they're—if they're available to me and they're appropriate to submit, I will submit them. That is not a blanket statement that I'm going to provide the Committee with information that's inappropriate to provide and—or that's not responsive.

Mr. BROOKS. And it seems that a lot of your argument for these regulations is based on global warming or climate change, which seems to be the term that's used, but aren't you really talking about global warming?

Ms. MCCARTHY. Not the ozone one, sir. That's—

Mr. BROOKS. I know not the ozone. I'm going to the broader brush now—

Ms. MCCARTHY. Well, we tend not to—

Mr. BROOKS. —carbon by way of example.

Ms. MCCARTHY. —call it global coming because it—that is not particularly an accurate term. It's a changing climate, which can result in many different types of impacts and—

Mr. BROOKS. And is sea rise one of the concerns?

Ms. MCCARTHY. Sea level rise, yes.

Mr. BROOKS. What is the largest body of ice on the planet?

Ms. MCCARTHY. I don't know that, sir. I'm not—I'm not a scientist. I don't want to answer that.

Mr. BROOKS. I'm sorry, you don't know—we're talking about melting ice that you are arguing is going to increase sea levels. That in turn is going to cost the American people billions of dollars to try to rectify it based on these standards that you're pushing

down on them without Congressional approval, and you're telling me you don't know——

Ms. MCCARTHY. Sir——

Mr. BROOKS. —what the largest body of freshwater ice is on the planet?

Ms. MCCARTHY. Sir, I don't agree with the way in which you've characterized this, but I hesitate to go down the lines of speaking like a scientist.

Mr. BROOKS. Well——

Ms. MCCARTHY. You've had the President's scientists here——

Mr. BROOKS. Wait, I've got——

Ms. MCCARTHY. —that you've been talking with——

Mr. BROOKS. —limited time. You don't know that the Antarctic——

Ms. MCCARTHY. Yes, well——

Mr. BROOKS. —continent——

Ms. MCCARTHY. —I'm aware of the Antarctic, and I'm aware of the——

Mr. BROOKS. —comprises about 70 to 90 percent——

Ms. MCCARTHY. —yes.

Mr. BROOKS. —of the freshwater ice on the planet? I mean, that's a rather remarkable amount. That's not like there's a close second place that you have to worry about.

Ms. MCCARTHY. Is there a question?

Mr. BROOKS. Now, have I refreshed your recollection with respect to the Antarctic being the largest body of freshwater ice on the planet?

Ms. MCCARTHY. I'm aware of that.

Mr. BROOKS. Now you're aware of that? Okay. That's good. Now——

Chairman SMITH. The gentleman's time has expired.

Mr. BROOKS. What a bummer, Mr. Chairman. Thank you.

Chairman SMITH. But thank you, Mr. Brooks, for those great questions.

The gentleman from California, Mr. Bera, is recognized for his questions.

Mr. BERA. Thank you, Administrator.

Ms. MCCARTHY. How are you?

Mr. BERA. I'm doing fine. Thank you, Chairman and Ranking Member.

I grew up in California, in southern California in the Los Angeles area in the 1960s, and I recall as a kid there were days where my mom would not let us go outside because if we did sneak outside, as kids are known to do sometimes, we'd get out there playing—we could see the air that we were breathing sometimes. And when you came in after playing, you could actually feel the burning in your lungs.

And it was through understanding the damage that was causing to our population, our people, through enacting laws either through legislation or companies doing the right thing and understanding that they had a responsibility that we were able to clean up the air in Southern California so that we still have a ways to go. But we were protecting the public. It was a public health measure

through acts like the Clean Air Act, through acts like the Clean Water Act to impact our public health.

Now, fast forward. You know, I decided to become a doctor, went to medical school, went into internal medicine. To this day we're seeing dramatic increases in asthma rates. We're seeing impacts that are disproportionately affecting, you know, urban areas, lower-income communities, communities that don't have the benefits of some of the rules and regulations that we have in California, and we've still got a long ways to go. And that does have a net cost. It has an impact. It has an impact on individuals; it has an impact on their health.

You know, Administrator, if you could just share from your perspective some of the public health benefits of, you know, Clean—the Clean Air Act, Clean Water Act, some of the things that—and then some of the negative consequences of trying to roll back some of the legislation that really in many ways has helped save and impact hundreds and thousands of lives.

Ms. MCCARTHY. Well, I think probably if you're returning to Los Angeles, you will see the benefits as well as feel it. We've been talking a lot about this to try to understand what we're going to do to educate people about what the world looked like before these environmental statutes actually came into being and Congress was wise enough to challenge us to limit the amount of pollution in the air we breathe and the water that we drink.

I think you know as well as I do that these rules, when they reduce pollution, it's not an abstract concept; it's a real-life issue. You know, it has helped to save—and we can show you certainly our impact assessments. We have showed you that we are saving millions of lives. We are protecting kids from exacerbated asthma attacks, from trips to the hospital, many of which are African-American and Hispanic kids because that's the ones that have much higher prevalence of asthma.

We are now understanding the cardiovascular challenge that it poses. If you have, you know, obstructive—what is the word—pulmonary disease, you are in a lot of trouble on a high ozone day.

So part of the challenge we have with providing these NAAQS standards is to try to make sure that people have sound information to protect their own lives while we work with States to reduce that actual pollution.

And we have had so much success. We have reduced by 70 percent the amount of air pollution. We are where every other country wants to be on air pollution. But the more we learn, the more we know that there continues to be extreme challenges that we all have to face. We can see it in our drinking water. With lack of investment in our infrastructure, you are going to see more and more cities putting their hands up in the air and saying I cannot deliver drinking—clean drinking water because nobody's invested in my system for 20 years.

So we are—have to really regroup and remember that we—our country has had our economic engine roaring ahead because we have a place where people want to live, where they want to grow their families, and that's all about making sure that environmentally we can be safe and healthy.

Mr. BERA. And it's a shame that this body, which historically has been able to come together as Democrats and Republicans on issues of public health, on issues of public safety, is not doing that. And there is an urgency of now. There is an urgency to prevent the next Flint, to invest in our public health and our infrastructure because it's not just about us, it's about our kids, and I don't want my daughter or my grandchildren eventually to go out and be able to see the air that they're breathing. I want that air to be cleaner and healthier.

So thank you for what you're doing, and then let's buy it for the next generation. I yield back.

Chairman SMITH. Thank you, Mr. Bera.

The gentleman from Florida, Mr. Posey, is recognized for his questions.

Mr. POSEY. Thank you, Mr. Chairman. And, Administrator McCarthy, good to see you again.

Ms. MCCARTHY. You, too.

Mr. POSEY. And let me just follow up what the last speaker was saying. I believe everybody on both sides of the aisle on this committee most certainly wants clean air in the most honest, efficient way possible and transparent way possible.

Last year, EPA proposed a regulation to prohibit conversion of vehicles originally designed for on-road use into racecars. The regulation would have made the sale of certain products for use on such vehicles illegal. The proposed regulation was contained within a non-related proposal entitled "greenhouse gas emissions and fuel efficiency standards for medium- and heavy-duty engines and vehicles, phase 2."

In response to the behavior, members of both the U.S. House of Representatives and the U.S. Senate introduced legislation with bipartisan support, I might add, that would clarify the Clean Air Act to explain that it has always been illegal to modify a street vehicle into a racecar.

It appears that three EPA employees, Mr. Brooks, a Ms. Werner, and a Mr. Belser, were involved with placing the provision in the rulemaking process. When those EPA officials briefed our committee staff on this issue, they readily admitted to conducting no scientific analysis on the impacts of the regulation whatsoever and with no scientific underpinnings. Your staff was questioned on the secretive nature of notifying the proposed regulation.

Again, your staff confessed that YouTube videos of diesel trucks co-rolling hybrid vehicles was the primary motivation for the proposed regulation. They even brought pictures of the YouTube videos to illustrate their concerns. That reasoning, frankly, is embarrassing. I hope it is to you, too, and a clear overreach by your staff and the EPA who is charged with rulemaking based on sound science, as you say often, not of unsubstantiated videos posted on the Internet. In fact, your agency was forced to drop the controversial language from the heavy- and medium-duty truck rule, and thank you for that.

The question is do you agree now with sneaking a provision into an unrelated rule without conducting any scientific analysis whatsoever and based on YouTube videos is not the proper way to do rulemaking?

Ms. MCCARTHY. Well, let me begin by saying that EPA supports the motorsports industry and it contributes tremendously to our economy and our contributions.

I will have to say that this turned out to be a very misunderstood and misinterpreted step to try to clarify existing law. It was never intended to change the playing field——

Mr. POSEY. Okay. I read those reports——

Ms. MCCARTHY. —so they——

Mr. POSEY. Thank you. I'm going to go to the next question here.

Ms. MCCARTHY. Okay.

Mr. POSEY. Have any steps been taken to reprimand or discipline the officials involved in sneaking this provision into the rule?

Ms. MCCARTHY. I disagree with the characterization that it was sneaking. They were intending to put clarification in in a heavy-duty vehicle rule about vehicles. Was—did it turn out to be a surprise and something we certainly should have discussed before? I think we should have discussed it. I don't like surprises any more than you do. I don't think they intended it to be nefarious in any way. They were clarifying for the benefit of what they believed to be the racing industry.

Mr. POSEY. I'm still concerned that EPA wants to regulate the amateur racing community and those who use non-road vehicles for racing. It is my understanding that the Clean Air Act never had the intent to regulate these vehicles, as you've indicated, and that subsequent report you've heard.

Ms. MCCARTHY. Dedicated racing vehicles have never been a focus of our attention, and the question was could the—could we be clearer about that. And I think that's what the intent of the language was, but I understand your concern.

Mr. POSEY. Okay. So can you assure the American people beyond any shadow of doubt that non-road vehicles modified specifically for the purpose of racing will be exempt from the Clean Air Act in the future?

Ms. MCCARTHY. My understanding is that we have considered them to be exempt since day one as long as you have dedicated racing vehicles. Our concern is just with companies that may be selling these sort of defeat devices for on-road vehicles.

Mr. POSEY. Well, and the racing community wants you to chomp down on those people.

Ms. MCCARTHY. That's exactly right.

Mr. POSEY. You know, but——

Ms. MCCARTHY. That is true. That is true.

Mr. POSEY. We would just like to have your personal assurance that, you know, you say they're exempt now, but there will be no future efforts to change that exemption.

Ms. MCCARTHY. If we—in the future—when I'm here, if we want to resolve this issue and clarify it, we will work with the industry and stakeholders to make sure that we do it in a way that they understand it and we all agree that it's written as intended.

Mr. POSEY. Okay. So you—are you giving me the assurance and the American people that non-road vehicles modified specifically for the purpose of racing will be exempt from the Clean Air Act?

Ms. MCCARTHY. As long as they are dedicated racing vehicles, they are exempt, and as far as I know——

Mr. POSEY. Is that a yes?—

Ms. MCCARTHY. —they will be.

Mr. POSEY. Can I just take that as a yes?

Ms. MCCARTHY. As long as it's phrased the way I said it, absolutely.

Mr. POSEY. All right.

Ms. MCCARTHY. But I—you know, I do want to apologize because I know this raised a lot of issues, and frankly, it came out of conversations with the racing industry. It wasn't done well, not the way we generally do it, which is to road-test—sorry the pun—

Mr. POSEY. Yes.

Ms. MCCARTHY. —but to talk to people about it, and we will make sure that that doesn't happen again.

Mr. POSEY. Thank you. Thank you, Mr. Chairman. I yield back.

Chairman SMITH. Thank you, Mr. Posey.

And the gentleman from Texas, Mr. Weber, is recognized.

Mr. WEBER. Thank you, Mr. Chairman.

Director McCarthy, thank you for being here.

Ms. MCCARTHY. Yes, sir.

Mr. WEBER. In your discussion with Randy Neugebauer, you said that Texas probably was the leading clean energy producer in the country—

Ms. MCCARTHY. Yes.

Mr. WEBER. —and I can tell you from being from Texas, having worked on the Environmental Reg Committee, that it is, wind industry.

Ms. MCCARTHY. Yes, it's amazing.

Mr. WEBER. And then you also said that you're not doing it because the Clean Power Plan requires it but because the market demands it.

Ms. MCCARTHY. Yes.

Mr. WEBER. So Texas—the Texas Legislature, the Texas energy industry if you will was a little foresightful in that regard, wouldn't you say?

Ms. MCCARTHY. I think that they—obviously, they were very forward-leaning—

Mr. WEBER. They were—

Ms. MCCARTHY. —and they took advantage of a lot of investment—

Mr. WEBER. Very foresightful.

Ms. MCCARTHY. —for your state.

Mr. WEBER. And Texans are benefiting from that now, wouldn't you say?

Ms. MCCARTHY. I would hope so.

Mr. WEBER. Right, absolutely. So you would argue that—you would say—agree that the Texas Legislature had a legitimate purview and did the right thing for Texas constituents, and their constituents are benefiting from it? The reason I ask is because of the Clean Power Plan. Now 26 states, including Texas, which took the lead, by the way, filed a suit against the Clean Power Plan citing it as overreach—

Ms. MCCARTHY. Yes.

Mr. WEBER. —and the Supreme Court seems to have, at least for the interim, agreed. Would you agree—

Ms. MCCARTHY. Well, they've stayed it.

Mr. WEBER. They've—until they can look at it further.

Ms. MCCARTHY. That's correct.

Mr. WEBER. So in staying it, what they've said is that apparently there's some merit here, we better take a look at it and not just remand it to the lower court decision?

Ms. MCCARTHY. Well, they certainly stayed it——

Mr. WEBER. Okay. So——

Ms. MCCARTHY. —that's right.

Mr. WEBER. So, in essence, if the Texas Legislature has that kind of overview, purview, shouldn't Congress have the same kind of overview on the Clean Power Plan in those actions?

Ms. MCCARTHY. Well, the Supreme Court will certainly get their eyes on this again.

Mr. WEBER. Well, I'm glad you recognize that. I appreciate that.

What I want to ask is that, last month, EPA released its proposed renewable fuel standard, the RFS rule, setting the renewable fuel volumes for 2017.

Ms. MCCARTHY. Yes.

Mr. WEBER. Now, under the proposed rule, the EPA requires 18.8 billion gallons of renewable fuels be blended into the fuel supply by 2017, which is actually an increase from the EPA's 2016 rule. The proposed rule increases biofuel volumes in every category, even though the United States is currently not on track to meet the 2016 targets. So here's my—right? You understand that?

Ms. MCCARTHY. Yes.

Mr. WEBER. So here's my question. Do you believe that the proposed RFS rule for 2017 is achievable?

Ms. MCCARTHY. We proposed it because we believe so, but it is in a comment period, and we're certainly welcoming those comments——

Mr. WEBER. I'm happy to hear you say that. The EPA's proposing to increase cellulosic biofuel volumes——

Ms. MCCARTHY. Yes.

Mr. WEBER. —by 82 million RINs even though the United States is on track to produce only less than half of the 2016 mandate. So if you've looked at it and you've proposed it because you think it can be done, you're proposing to increase the advanced biofuel volumes even though the trend suggests that on the current path we're on we're going to see a 380 million RIN shortfall in 2016. The reality is the EPA has proposed an increase in the RINs with no demonstrable way to meet that mandate.

Ms. MCCARTHY. Okay. Well, again, we're welcoming comments, but in the packet itself——

Mr. WEBER. Well, if we can't meet 2016 and you're increasing in 2017, how do you propose that to happen?

Ms. MCCARTHY. Actually, you know, we are taking a look at what we know is happening in 2016, what's available to us because it's a long year. It's not quite over.

Mr. WEBER. Well, let me just argue in the last minute that I've got——

Ms. MCCARTHY. Okay.

Mr. WEBER. —that I would say just as the Texas Legislature demonstrated its foresightfulness in helping be the wind-producing

state that it is, how about Congress being given credit for having some foresightfulness, too, when we think the EPA has overstepped its bounds and is promulgating rules that are unrealistic? It ought to be up to us to point that out so that our constituents benefit as well, and I just want to make that point.

I do want to segue to a little bit different topic. It's come out that some EPA employees were using their personal emails for official business in an apparent effort to evade Congressional oversight. Now, in our estimation, this is a violation of the Federal Records Act. What do you intend to do about it?

Ms. MCCARTHY. I don't know what issue you're referring to, sir. We've certainly had many discussions about the use of private emails. We've had an OIG investigation into that issue, and I am unaware of any evidence to suggest that we're trying to subvert the normal process or not complying at this point with all of the rules and regulations that govern—

Mr. WEBER. So you're unaware of any violations in that regard?

Ms. MCCARTHY. I am unaware that anyone has indicated that we have a systemic problem with using emails to subvert the process and subvert—

Mr. WEBER. Well, I didn't say systemic; I said any.

Ms. MCCARTHY. You—I'm sorry, sir. You're going to have to show me that because all the times that I've been here, you know, we certainly had an IG. They did not verify that there was—that this was a practice in EPA, so I feel pretty good about where we are. And if there's information that you want to provide me, I'm happy to look at that.

Mr. WEBER. You're going on record today saying that you don't have any evidence of that in any of the Agency at all?

Ms. MCCARTHY. Well, I'm not suggesting that there hasn't been, you know, an email that—a specific incidence, but to suggest that we're doing it to subvert a—the public process is what I am objecting to. You know, you will get oftentimes people sending—receiving something on their email. We have a direct policy that speaks to how you enter that in, if it's work-related, into the public process and to meet all of our federal obligations—

Mr. WEBER. Does that also apply to the Pebble Mine investigation?

Ms. MCCARTHY. The Pebble Mine investigation is multifaceted. Folks have been—

Mr. WEBER. I'm talking about them using personal emails and corresponding.

Ms. MCCARTHY. There have been—I do know that there was a gap when a person left the agency where we had trouble locating their emails and we've been trying to fill that gap—

Mr. WEBER. Okay. So you are aware. That kind of contradicts what you said earlier, you weren't aware.

Ms. MCCARTHY. No, you asked me if someone was using their private system to subvert the public process. I am—

Mr. WEBER. So you know that they potentially did it in the Pebble Mine incident but you haven't been able to find those emails?

Ms. MCCARTHY. If there a potential, I would like to be able to address the situation.

Mr. WEBER. Mr. Chairman, I yield back.

Chairman SMITH. Thank you, Mr. Weber.

The gentleman from Michigan, Mr. Moolenaar, is recognized.

Mr. MOOLENAAR. Thank you, Mr. Chairman, and Administrator McCarthy—

Ms. MCCARTHY. How are you?

Mr. MOOLENAAR. —thanks for being here with us.

First of all, I want to commend you. You apologized for the rule, the racing vehicle rule. You heard the feedback from stakeholders. You withdrew the rule, and you responded very promptly, and I want to—you know, I actually have a business in my district that really—that would have basically put them out of business, and so I want to thank you for that, first of all.

Now, I want to tell you about another rule that has people in my district very concerned, farmers, property owners, home builders. That's the Waters of the U.S. Rule, and I would say that the EPA's approach, that has been very different when you consider that 32 states are suing the federal government over this, where the goal was to offer clarity and clearly that has not happened. I feel that the stakeholders involved in that are still very concerned about it, and I'm sure you hear from them, although I am also concerned about some of the, you know, social media efforts to promote the rule, lobby for the rule, if you will, that didn't give you really very accurate feedback, and I know your goal has been to clarify aspects of the Clean Water Act but I would suggest that rather than what happened before where I commended you, this has been just the opposite, and it has added further confusion. And are you hearing that from people?

Ms. MCCARTHY. I am certainly hearing that people continue to both be for and against the Clean Water Rule but it is a final rule, and it is in court and we'll see where that litigation proceeds. Do I wish I could have had one moment where everybody would understand and agree? I wish I had it. I don't have it on this rule.

Mr. MOOLENAAR. Well, I think it's pretty strong indication when a majority of Congress has voted to disapprove of the rule and 32 states are suing over that rule so I don't know if there's anything you can do to rescind it or modify it at this point but I would encourage you to reach out to the stakeholders to do something new on that because it's still more confusion and more concern throughout Michigan.

Ms. MCCARTHY. Well, I appreciate that, and I'll do the best I can to reach out. I mean, it's primarily the agricultural industry that's worried about it and our farmers, and you know, I think what I'm most concerned about is that I paid very close attention to their comments and concerns, and in finalizing the rule, I went above and beyond the exemptions and exclusions in that rule.

Mr. MOOLENAAR. Well, I don't—

Ms. MCCARTHY. I did everything I could not just to protect it but go beyond it. That's what confuses me and concerns me.

Mr. MOOLENAAR. Okay. Well, I would just encourage you to reach back out and see what—

Ms. MCCARTHY. I appreciate that.

Mr. MOOLENAAR. —can be done. I know there's a company, and you may have heard about this, that has been working for 30 years

to get a 404 CWA permit. Are you familiar with the ESG companies?

Ms. MCCARTHY. No, I don't believe so.

Mr. MOOLENAAR. They recently testified in the Senate Committee on Environment and Public Works, and the vice president stated that the EPA is working to change the rules again with the regulation, WOTUS, that would redefine the scope of waters protected under the Clean Water Act. They are trying to accomplish this by adding new terms, definitions and interpretations of federal authority over private property that are more subjective and provide them with greater discretionary latitude, and you know, I'm just concerned that that may be an indication of what other companies are experiencing, and I think you know that Justice Kennedy stated that the region's systemic consequences of the Clean Water Act remain a cause of concern. So I would just again encourage you to revisit this.

I've only got a minute left, but I also want to talk to you about Flint because—and I had hoped that there might be some Democrats here who would want to, you know—because I know there was significant interest a while back from the Democrats on what happened in Flint, and—

Ms. MCCARTHY. And there still remains a lot of concern.

Mr. MOOLENAAR. Well, and you know, is the water in Flint safe to drink?

Ms. MCCARTHY. Well, right now we're using filters and bottled water but we're making progress and we're hoping that there'll be some new testing done actually this month and available to us early next to tell us whether we've now got the system where it needs to be.

Mr. MOOLENAAR. And then do you—I mean, in hindsight, do you wish you would have listened to Miguel del Toral, who kind of raised this issue almost a year in advance before the EPA took action to address the problem? I mean, he's an EPA employee, and at some point people weren't listening to him.

Ms. MCCARTHY. Well, I'm not sure whether he would characterize it that way so I don't want to speak for him, but had I known earlier the situation that was happening in Flint, I absolutely would have raised a red flag from the highest mountaintop.

Mr. MOOLENAAR. And do you feel—

Ms. MCCARTHY. And the fact is, I did not.

Mr. MOOLENAAR. A while back you told me that you believed the EPA Region 5 Administrator, Susan Hedman, was a hero.

Ms. MCCARTHY. That's right.

Mr. MOOLENAAR. My sense is that she should have been the one on point listening to the employee who was raising these concerns and taking action. I don't consider that heroic, and I guess I'm wondering if in hindsight that should have been addressed at the region level.

Ms. MCCARTHY. Well, as you know, she did resign her position because I think she felt that she should have known and wanted to make sure that wasn't distraction on us focusing on the people in Flint, and I think it resulted in that.

You know, I think there are a lot of failures in the system. We're trying to address those and the way in which we work and do over-

sight, but it was an extraordinarily challenging circumstance that in hindsight, if we could have addressed it earlier, it would have been all the better. So I can—I'm not defending the agency or anybody on Flint. The only thing I'm doing is trying to fix the situation and learn from it as best I can and make sure that there are no other Flints out there, and we'll do the best from this point forward.

Mr. MOOLENAAR. Thank you very much.

Thank you, Mr. Chairman.

Chairman SMITH. Thank you, Mr. Moolenaar.

The gentleman from Texas, Mr. Babin, is recognized.

Mr. BABIN. Thank you, Mr. Chairman, and thanks for being here, Administrator McCarthy.

Ms. MCCARTHY. Thank you, sir.

Mr. BABIN. On April 28th, this Committee heard testimony from Region 10 Administrator Dennis McLaren about the EPA's efforts to limit the potential Pebble Mine project by using Section 402(c) of the Clean Water Act before the project had even applied for a permit.

Ms. MCCARTHY. That's correct.

Mr. BABIN. The Committee demonstrated to Mr. McLaren that it has uncovered that EPA employees used non-official email accounts to discuss the Pebble Mine matter with mine opponents and determined that EPA employee Phil North provided edits and suggestions to a petition letter, which EPA claims is the impetus for starting the preemptive 404(c) process. The EPA Office of Inspector General found in agreement with your agency that this official may have misused his position as a federal government employee, and according to documents and deposition testimony received by this Committee prove that the petition from Alaska Native tribes the stated impetus for Region 10's Bristol Bay Watershed Assessment was in fact drafted with the help of at least one EPA employee.

Doesn't this fact along with other EPA briefing materials and communications prove that the assessment was done solely to provide the political cover for an eventual Pebble veto? Doesn't this in fact prove that?

Ms. MCCARTHY. Sir, I don't want to speak to anybody's motivations and we'll certainly address the issues that you've raised, but the motivation for taking action under 404(c) was multifaceted, the first and foremost being the value of Bristol Bay and the amount of jobs that Bristol Bay provides—

Mr. BABIN. But they had not had a chance to even file their plan yet, so how would you know that?

Ms. MCCARTHY. Well, they have had ample years prior to us using—initiating this process, and they continue to have opportunities to submit a permit. The simple issue is that they were disrupting that area in a way that made us worry about our—

Mr. BABIN. Well, it just seems—

Ms. MCCARTHY. —ability to—

Mr. BABIN. It seems very, very specious that one of your employees would be helping to draft this type of a document.

Next question. The Committee has uncovered documents that show that EPA employee Richard Parkin stressed the following before a group supportive of EPA's action to stop the Pebble Mine:

“While a 404(c) determination would be based on science, politics are as big or a bigger factor.” Does this concern you that this was the sentiment of a career employee or employees at the EPA with regard to the agency’s determination regarding the Pebble Mine?

Ms. MCCARTHY. Sir, again—

Mr. BABIN. Does that not raise a red flag with you?

Ms. MCCARTHY. Sir, again, I have no idea what he was referring to or talking about. I know what—

Mr. BABIN. What he was referring to is that politics—

Ms. MCCARTHY. —actually happened at the agency.

Mr. BABIN. —would be as important or more important than the science. That doesn’t concern you?

Ms. MCCARTHY. I don’t know what politics he’s talking about. I know the reality of decision-making in the agency. I know why we moved down this road, and I know what we were trying to protect, and you know, one of the missing pieces that I just want to make sure you are aware of is that in the history of the EPA and its relationship with the Corps on 404(c), the Corps has done two million permits. We have only 13 times ever used this, and it’s because of the uniqueness of that resource—

Mr. BABIN. This—

Ms. MCCARTHY. —and the challenge that the tribes had that rely on that salmon fishery.

Mr. BABIN. All right. Peer reviewers repeatedly warned EPA that the assessment was insufficient as a basis for a regulatory decision, a claim that the EPA publicly agreed with. Why did the agency then rely exclusively on the assessment when it launched the 404(c) determination?

Ms. MCCARTHY. It didn’t, sir. The assessment wasn’t part of the 404(c). The assessment was looking at the value of the watershed. The documentation that was produced in the 404(c) process by the region was actually the policy and regulatory action. Did it consider the science? Absolutely, but that science document was not a policy document or a regulatory document.

Mr. BABIN. It sounds like the politics trumped the science to begin with.

Ms. MCCARTHY. I don’t consider policy to be politics or regulations to be. They’re entirely different vehicles and I think appropriate to use for the agency.

Mr. BABIN. All right. Thank you.

Isn’t it true and hasn’t your agency openly acknowledged that a preemptive veto of this kind had never been done before in the history of the Clean Water Act? Wasn’t this the first of its kind?

Ms. MCCARTHY. I don’t—I’m not—I don’t know. I don’t—I can’t answer with certainty. I’m happy to get back to you on it.

Mr. BABIN. I hope so.

Well, anyway, my time’s expired, Mr. Chairman, so I thank you very much.

Chairman SMITH. Thank you, Mr. Babin.

The gentleman from New York, Mr. Tonko, is recognized for his questions.

Mr. TONKO. Thank you, Mr. Chair, and Administrator, welcome.

Ms. MCCARTHY. Thank you.

Mr. TONKO. You always do your job with great forcefulness and intellect, so we thank you for that.

Today's hearing appears to be a revival of hearings we've held before, proposals that strengthen standards to protect public health and to protect our environment, an environment that we're going to then extend to the next generations, and claims that meeting these standards will be too costly, possibly not achievable, and in general a serious drag on our economy. So, you know, here we go again. So I have a few questions for you.

Let me start where you just ended. Proponents of the Pebble Mine accuse EPA, particularly Phil North, of inappropriately colluding with tribal groups. Region 10, I'm informed, according to the EPA website, includes some 271 Native tribes in its jurisdiction. Can you speak to EPA's special responsibility to tribal governments, and if you could, Administrator, compare that with EPA's relationship with the given states and outside interest groups?

Ms. MCCARTHY. Actually, with the tribes, we have, I think you know, a very special relationship because we treat them as government entities. We have a trust responsibility in our work with the tribes, and I think we paid very strong attention to the tribes as well as states that had concerns about protecting what is one of our most precious resources, Bristol Bay and its salmon fisheries, and we worked very closely with both the states but most importantly, there are tribes there whose culture depends on salmon. It is their livelihood as well as the focus of their lives and their community, and I think we were very cognizant of that when the region was looking at whether or not 404(c) was an appropriate step to take. For states, work with states and local communities, in general, we have a partnership relationship with them. They are co-regulators for many of the work we do. We delegate responsibilities to them and we try to be a good partner in terms of providing the kind of web of protection that Congress intended.

Mr. TONKO. Well, we appreciate that, and again, thank you for the leadership that you provide the agency and the country.

Let me switch to CASAC, the Clean Air Science Advisory Committee. I believe it was created in 1977 with the Clean Air Act Amendments. Their first report on ozone came out in the mid-1980s, and there have been a number of subsequent reviews over the past 35 years with much new research since the original report. Has CASAC found that ozone is less of a health risk than 1980s science determined that it was?

Ms. MCCARTHY. No. They actually on the basis of much more robust science understand just how damaging ozone is to our public health.

Mr. TONKO. And does it contribute less to other environmental problems—damage to plants, to visibility and other effects?

Ms. MCCARTHY. No. We understand it's more than we had anticipated then.

Mr. TONKO. So, if anything, research over the years has confirmed that ozone is a health risk and an environmental problem. Is that correct?

Ms. MCCARTHY. That is correct. That was the basis of recent decisions that were made, yes.

Mr. TONKO. And have past standards been criticized on the basis of their projected costs and/or benefits?

Ms. MCCARTHY. Yes, most, if not all, yes.

Mr. TONKO. Well, it's interesting because I believe that it's clear that we have been able to achieve cleaner air and grow the economy as we have strengthened the standards. Is that now not indeed the outcome?

Ms. MCCARTHY. That's very accurate, yes.

Mr. TONKO. And is there any reason to believe we cannot keep that record going?

Ms. MCCARTHY. No.

Mr. TONKO. You know, will the states have flexibility and discretion to determine how they might meet new standards in the most cost-effective manner?

Ms. MCCARTHY. In the wisdom of Congress, that's how it was defined and designed, yes.

Mr. TONKO. And as I understand it, EPA and others have estimated the benefits achieved by lowering the ozone standard. Can you please elaborate on what those benefits are about?

Ms. MCCARTHY. Sure. Give me one second to pull it up. The benefits—the health benefits are estimated to be \$2.9 to \$5.96 billion. That relates to issues relative to our kids in reducing asthma attacks and visits to the hospital. It has to do with cardiovascular improvements for adults and especially the elderly. So it's direct public health benefits, which considerably outweigh the costs, which are estimated to be \$1.4 billion.

Mr. TONKO. Thank you. You know, I've exhausted my time, but I do want to thank you for leading the fight for clean air, clean water, response to climate change, a legacy that will imprint itself not only for this given political generation but for generations to follow.

Ms. MCCARTHY. Thank you.

Mr. TONKO. With that, Mr. Chair, I yield back.

Chairman SMITH. Thank you, Mr. Tonko.

And the gentleman from Alabama, Mr. Palmer, is recognized for his questions.

Mr. PALMER. Mr. Chairman, I'd like to take this discussion a little different direction, if I may. I have a video I'd like for Administrator McCarthy to watch along with everyone in the room.

[Video playback].

Mr. PALMER. You know, it's very easy to sit here and have this discussion about all these regulations and try to deny that they have an impact on people but, you know, you are having an impact on people and unnecessarily so. You've destroyed thousands of jobs. You've impacted thousands of families, not just Alabama families but families all over the country, and I don't look at them as collateral damage. I mean, here's a guy who one of those families sat there and he cried through the interview. You got another guy whose wife's diagnosed with cancer right after he lost his job, two daughters having to drop out of college. You know, there's a price to pay for this, and you know, you may deny that this is impacting things.

You know, the Energy Information Administration projects EPA's Clean Power Plan is going to kill 376,000 jobs in 2030, reduce GDP

by about \$58 billion. You've got a room full of young people here that all they're hearing is this climate change agenda. You talk about asthma. Asthma rates have gone up even though air quality has dramatically improved. You're not getting the whole story here, and I think the American public needs to get the whole story.

You talk about it impacts people. I just want to read you some highlights from a recent report by Mr. Oren Cass, who testified before our Committee this past December, and I'm submitting this report, Mr. Chairman, for the record. "President Obama's policies for tackling climate change would impose heavy costs borne disproportionately by lower income U.S. households." There's been a lot of talk today about how important is to take care of lower income people. His Clean Power Plan and proposal for a \$10.25-per-barrel oil tax or equivalent of a 25 to 30 per-ton carbon tax would cost American's poorest families tens of billions of dollars per year. For households in the lowest quintile, such policies are equivalent to more than 160 percent of federal income tax.

I just want to share something with you. Again, the National Energy Assistance Survey shows that because of the difficulty they face in paying utility bills, these households are forced to make choices that carry serious health risk. As many as thirty-seven percent went without medical or dental care. Thirty-four percent did not fill a prescription or took less than their full dose of prescribed medications. In addition, twenty-four percent went without food at least one day, and nineteen percent became sick because the home was too cold. These were decisions that low-income people made because their energy costs went up because of the EPA's policies, and we're talking again hundreds of thousands of jobs that have been lost.

Administrator McCarthy, if you don't remember anything else out of this hearing today, I want you to remember the faces and the voices of the people who have had their lives absolutely destroyed by the EPA's policies.

Mr. Chairman, I yield back.

Chairman SMITH. Thank you, Mr. Palmer.

And the gentleman from Georgia, Mr. Loudermilk, is recognized for his questions.

Mr. LOUDERMILK. Thank you, Mr. Chairman, and thank you, Administrator McCarthy, for being here today.

I would like to go back to the line of questioning that Representative Lucas brought up, the glyphosate studies that were done, and for the benefit of those who haven't been following this and those who may be watching on television, let me just go back to review. This is a herbicide that is widely used both commercially and residentially. I've used a particular product to kill weeds. It does a very good job at it. In 1986, the EPA ruled or classified this as a group B chemical, which in layman's terms says there's no evidence that it causes concern. We are determining that there's no evidence that it does. And then in 1991, it was classified by the EPA as a group E, which says there is evidence that it does not cause cancer. So it sounds like we're finding out that this is actually a safer product than what we actually envisioned it to be.

Then there was a term, because in March of 2015 the International Agency for Research on Cancer did a study saying that it

probably is carcinogenic, it probably does cause cancer, which from what it appears as it prompted the EPA to do another study, which I can understand. Somebody else says that it probably does cause cancer, then we're going to study it for ourself. But in September 16th of 2015, the Cancer Assessment Review Committee of the EPA basically countered what the international study and said it's not likely to be carcinogenic to humans.

So with that, my question to you is, did any EPA officials work on IARC's glyphosate review?

Ms. MCCARTHY. Well, let me just clarify one thing if I might, and then I'll answer your question. It wasn't what prompted the review.

Mr. LOUDERMILK. Okay.

Ms. MCCARTHY. This was a standard regulatory—

Mr. LOUDERMILK. So it was just a regular review?

Ms. MCCARTHY. Yes.

Mr. LOUDERMILK. But here we got an international committee that says something different than what our team of scientists have determined. So—but we came up with something different. Was anyone at the EPA actually working with IARC or participating in that review?

Ms. MCCARTHY. Actually, nobody was involved in the question of the carcinogenicity of glyphosate. We had three EPA employees. One was actually there as an observer. He participated—

Mr. LOUDERMILK. But did not—who was that?

Ms. MCCARTHY. Hang on one second and I will—

Mr. LOUDERMILK. Was that Peter Egeghy?

Ms. MCCARTHY. Hang on. We had—while I'm looking, I'll give you the names.

Mr. LOUDERMILK. We have limited time so—

Ms. MCCARTHY. One was—participated in information relative to exposure.

Mr. LOUDERMILK. Okay.

Ms. MCCARTHY. It was not relative to the carcinogenicity. None of them had any—

Mr. LOUDERMILK. No one participated in the work?

Ms. MCCARTHY. And one had to do with some of the tox information and how we helped them categorize it.

Mr. LOUDERMILK. Okay. Your staff did indicate to us that Matthew Martin participated in the IARC conference but did not participate in the glyphosate review.

Ms. MCCARTHY. Yes, and I have a Mr. Egeghy.

Mr. LOUDERMILK. Egeghy?

Ms. MCCARTHY. Right.

Mr. LOUDERMILK. And he did do some limited participation. Is that correct?

Ms. MCCARTHY. He actually just—he helped to draft and review portions of the human exposure. There were a number of pesticides being looked at at the same time.

Mr. LOUDERMILK. Okay.

Ms. MCCARTHY. It really had nothing to do with its carcinogenicity.

Mr. LOUDERMILK. Okay.

Ms. MCCARTHY. He looked at how it was used and that kind of thing.

Mr. LOUDERMILK. And this was all in Lyon, France, with the 112—

Ms. MCCARTHY. I don't know where he was when he was—

Mr. LOUDERMILK. Can we bring up the slide? I have an email, if you could bring that slide up, and this email—obviously it was Frank is responding to—or Matt is responding to Frank, who is part of the IARC, and if you notice on the first line of the original email, it says “First, may I repeat it was a real pleasure to meet and work with you for IARC monograph volume 112,” which is the subject that we're talking about. And of course, the subject of the email is “DZN and GLY” which is indicating that glyphosate is what they're talking about. If Mr. Martin was not involved in glyphosate review, why is on the email chain with the team that was working on that?

Ms. MCCARTHY. I can go back and look but I am—I have asked a number of times, and my understanding is that none of these individuals were there in the EPA capacity to participate in the issue of carcinogenicity.

Mr. LOUDERMILK. Okay.

Ms. MCCARTHY. Clearly, we have understanding of glyphosate and the other pesticides that were being looked at.

Mr. LOUDERMILK. Can we pull up the next slide as well?

[Slide]

Mr. LOUDERMILK. In our second slide here—excuse me, let me make sure I get my proper slides up—

Ms. MCCARTHY. My glasses are good but not that good.

Mr. LOUDERMILK. Well, this is again an email that's to a distribution list of those who were working on the glyphosate review, and Mr. Martin is also included on this, which this happens to be a list of talking points of how to answer the questions on glyphosate. So again, my question is, if he didn't participate in the glyphosate review—here's what I'm getting at.

Ms. MCCARTHY. He—

Mr. LOUDERMILK. I'm concerned that there is some interference between EPA and the IARC, and let me jump to one other—

Ms. MCCARTHY. Could I just clarify on Mr. Martin? He apparently was involved in the review for glyphosate but he didn't participate in the issues relative to its carcinogenicity. So I just wanted to make that clear. That was an entirely separate part of the—

Mr. LOUDERMILK. Well, Mr. Jess Rowland was the lead—he was the chair of the Cancer Assessment Review Committee that did the actual report that was contrary to what the IARC—and we would like to be very interested in interviewing Mr. Rowland but I understand that he is retired from the EPA. Do you know when he retired?

Ms. MCCARTHY. May of 2016. He went there as an observer. As far I know, he did not participate in the IARC process. Can I clarify? Because I made a mistake.

Mr. LOUDERMILK. Okay. Very quickly.

Ms. MCCARTHY. It says Mr. Martin was a computational toxicologist. He wasn't involved in the IARC review for glyphosate but he did participate in the IARC conference on other matters, and we

have no toxicological data on glyphosate so he couldn't have contributed to the carcinogenicity issue.

Mr. LOUDERMILK. Well, one of the lines in the email thanked him for his work but—

Ms. MCCARTHY. Well—

Mr. LOUDERMILK. —let me move forward because I'm really interested in Mr. Rowland and his retirement.

Ms. MCCARTHY. Okay.

Mr. LOUDERMILK. Does his retirement have anything to do with the controversy over the CARC report?

Ms. MCCARTHY. Not that I am aware of. He worked for the agency for many years is my understanding.

Mr. LOUDERMILK. Have you investigated whether or not these circumstances are linked? It's just interesting, right after this report comes out that is contrary to what the international agency has determined that—now—and I have the report here if we can bring it up. It is stamped as a final report—

Ms. MCCARTHY. It's a final memo.

Mr. LOUDERMILK. —which—well, it actually says "final report," not memo on the page, which indicates to me this is final, it's done, but you can understand the concern we have here is that it's a final report but maybe it didn't turn out the way that you anticipated it would so now we need to study it a little bit more.

Ms. MCCARTHY. I know that the mistake that was made by the contractor to post this has caused all kinds of conspiracy theories to erupt but there's nothing that's unusual about the process we're following with this and we'll do it on the basis of the science—

Chairman SMITH. The gentleman—

Ms. MCCARTHY. —and I don't want you to think that anyone, including me, is prejudging what our scientists say about this.

Mr. LOUDERMILK. Thank you, Mr. Chairman. I yield back.

Chairman SMITH. The gentleman yields back. Thank you, Mr. Loudermilk.

And the gentleman from Ohio, Mr. Davidson, is recognized for his questions.

Mr. DAVIDSON. Thank you, Mr. Chairman.

Administrator McCarthy, thank you. I was pleased earlier that you were personally familiar with the Waters of the U.S. Rule as you discussed with my colleague from Michigan, and my understanding is that this rule was a joint rule between the EPA and the Army Corps of Engineers. Is that correct?

Ms. MCCARTHY. That is correct.

Mr. DAVIDSON. Were you aware that the Army Corps of Engineers raised some technical concerns? Were they in the end supportive of your rule?

Ms. MCCARTHY. That's my—that certainly is my understanding in my communication with the Assistant Secretary who oversees the Corps, yes.

Mr. DAVIDSON. Are you familiar with concerns that they raised during the rulemaking process?

Ms. MCCARTHY. Not each of them because that was handled at the career staff level.

Mr. DAVIDSON. Are you familiar with a series of memos known as Peabody memos from Major General Peabody?

Ms. MCCARTHY. I am now aware of them, yes.

Mr. DAVIDSON. Okay. Are you aware that in a 27 April 2015 memo, General Peabody says "The just-completed review reveals that the draft final rule continues to depart significantly from the version provided for public comment."

Ms. MCCARTHY. I am aware that a few memos were written. I was not aware of them at the time but that's an internal Army Corps issue that I assume was raised and resolved during—

Mr. DAVIDSON. They weren't talking about what they shared with the public. They were talking about what you shared with the public.

Ms. MCCARTHY. No, they actually issued the proposal with us and issued the final as well.

Mr. DAVIDSON. It seems to me that they raised the concern that what was being shared with the public is what's different than what was in the final rule, what was in the rulemaking process.

Ms. MCCARTHY. Well, my belief is that you listen to public comment and you make changes that you think are reasonable after deliberating on that. That was the process that we followed.

Mr. DAVIDSON. Did you listen to the Army Corps?

Ms. MCCARTHY. We certainly did. They were a partner in this. They had to sign off on it. They issued the rule with us. It was jointly done.

Mr. DAVIDSON. Do you know why in a May 15th, 2015, concluding statement to a memo, General Peabody would conclude "We stand ready to assist the EPA in improving the technical analysis and to develop logically supportable conclusions for these documents if and when requested."?

Ms. MCCARTHY. It sounds like a collaborative partnership.

Mr. DAVIDSON. It sounds like he's got concerns that the documents are not logically supportable and that perhaps they were not previously requested, therefore, they were ready, to me.

Earlier in this memo, he provides the support for his conclusion. He says, "To briefly summarize, our technical review of both documents indicate that the core data provided the EPA has been selectively applied out of context and mixes terminology and disparate data sets. In the Corps' judgments, the documents contain numerous inappropriate assumptions with no connection to the data provided, misapplied data, analytical deficiencies and logical inconsistencies. As a result, the Corps' review could not find a justifiable basis in the analysis for many of the document's conclusions. The Corps would be happy to undertake a comprehensive review with the EPA to help improve these supporting documents, which we recognize are critical to the rulemaking." Have you read that before?

Ms. MCCARTHY. I may have, sir, but that was an internal Army Corps issue, and again, the Army Corps signed off on this so those issues had to have been internally resolved between them and us and certainly internally at the Corps.

Mr. DAVIDSON. Don't those concerns fit with the pattern that the Chairman of this Committee has raised with you, that in fact, the EPA has been selective in applying this? This is not just some pernicious claim, this is supported by what's actually happening by our uniformed officers. This is a general in our Army. Would you

recognize the Army Corps as an authoritative body with respect to rulemaking on the Waters of the United States?

Ms. MCCARTHY. Which is why I was satisfied by them signing off on the rule itself. There is much deliberation that goes on among the staff. I think that's healthy. I think we should challenge one another so our rule is legally sound and based on science.

Mr. DAVIDSON. It seems to me that the Army Corps' advice was ignored and by a political appointee, the Administrator, disregarded what the sound science of the Army Corps was doing. I don't want to jump to conclusions, but there's enough concerns that there's a stay thankfully blocking the implementation of this rule.

Earlier you spoke with one of our colleagues, and in fact, the Chairman, about saying that the EPA does not distort the market and in fact follows the market. Is that your view of what the EPA does?

Ms. MCCARTHY. I believe in the Clean Power Plan, we recognized a market—the market transition in the energy world, and we did our best to follow it knowing full well that that was the least and most cost-effective way to do it.

Mr. DAVIDSON. If you don't distort the market, then what is it that you're actually accomplishing if you're not actually steering the market in some way?

Ms. MCCARTHY. Well, we're doing our—under the law what we're required to do, which is follow the Clean Air Act, which actually requires us to address pollution that endangers public health.

Mr. DAVIDSON. Are you attempting to steer the market with respect to your pending 4,000-page rule on medium-duty diesel engines?

Ms. MCCARTHY. I'm not—we are not attempting to steer the market. In this issue, we are attempting to reduce pollution. What we try to do is understand where the market is heading so that we can get the most cost-effective, flexible way to achieve the reductions while letting the market drive how to get there. That is exactly what we did with the Clean Power Plan, and we do it every opportunity we can get.

Mr. DAVIDSON. My time is expired. Thank you.

Chairman SMITH. Thank you, Mr. Davidson.

And the gentleman from Arkansas, Mr. Westerman, is recognized.

Mr. WESTERMAN. Thank you, Mr. Chair, and Administrator McCarthy, I believe that you desire to see the United States lead the world in environmental protection. Is that a fair statement?

Ms. MCCARTHY. Certainly to the extent that Congress gives me that charge.

Mr. WESTERMAN. Are there other countries or regions of the world that are doing good things for the environment such as Western Europe, U.K., or the Netherlands?

Ms. MCCARTHY. I'm sure that every country is doing the best they can and some have very interesting programs that they've initiated.

Mr. WESTERMAN. So any of those in particular that—

Ms. MCCARTHY. Nothing that I want to highlight, no.

Mr. WESTERMAN. Okay. Secretary Vilsack sent a letter to the U.K. Secretary of State for Energy and Climate Change in which

he wrote, "The U.S. wood pellet industry increases our forested area, reduces greenhouse gas emissions, and improves U.S. forest management practice." He went on to state, "Demand for wood pellets also delivers compelling carbon and societal benefits to the United States. Independent analysis undertaken has consistently shown that demand for wood pellets promotes U.S. forest growth and reduces risk to U.S. forests." And without objection, I'm going to submit this letter for the record.

[The information appears in Appendix]

Mr. WESTERMAN. Given this stated position of the Secretary of Agriculture, how will EPA take into account these comments in the scientific analysis on which it is based?

Ms. MCCARTHY. We are in the middle of looking at different types of biomass for its use and how we can account for the greenhouse gas benefits. We are in a science process with our Science Advisory Board to develop an appropriate accounting process for that. So we're excited to be able to make progress in that because we do believe that there are many types of biomass that really will provide us an opportunity to move forward with——

Mr. WESTERMAN. Do you disagree——

Ms. MCCARTHY. —reductions in greenhouse gases.

Mr. WESTERMAN. —with the Secretary's position, what he stated about wood pellets and the use of biomass and wood pellets? Is there still science to be determined on that or the science that he based his analysis on correct?

Ms. MCCARTHY. I'm happy to talk to him and see what is the basis of his letter. I don't think that we're in disagreement. I think he knows that we're in a process to try to better account for those emissions.

Mr. WESTERMAN. Okay. And I was jotting down a few of the things you were saying earlier about people are expecting us to take reasonable actions, that you're following the science. I hope that you would continue to do that.

You also said that the, switching gears a little bit, the Gold King Mine is a disaster. You said you're doing your best to hold people accountable. I want to talk a little bit about the Gold King Mine spill that took place last August.

Ms. MCCARTHY. Okay.

Mr. WESTERMAN. Given the gravity of the situation, is it fair to say that you took that spill very seriously?

Ms. MCCARTHY. Yes.

Mr. WESTERMAN. And you've conducted your own internal EPA investigation?

Ms. MCCARTHY. We have for the most part relied on independent investigations by both internally with our Office of Inspector General as well as externally.

Mr. WESTERMAN. So what EPA employees did you find to be responsible for the Gold King Mine spill?

Ms. MCCARTHY. We did not find that anyone was derelict in their duties but we continue to have investigations and we're going to wait to see what they say.

Mr. WESTERMAN. So you didn't find anybody to be at fault in this mine spill?

Ms. MCCARTHY. So far, the reports that I have read that were independent continue to show that we were there working with the state and those communities to try to prevent the tragedy, that preliminary site work did cause a problem there and we've done our best to try to make sure that we take responsibility for that and work with those states and communities and tribes to resolve this.

Mr. WESTERMAN. So given your commitment and expertise on the issue, who was the EPA on site coordinator the day of the Gold King Mine spill?

Ms. MCCARTHY. I can't recall his name. I'm sorry.

Mr. WESTERMAN. I believe his name is Mr. Griswold, Hayes Griswold.

Ms. MCCARTHY. Yeah, that was it. Sure. Thank you.

Mr. WESTERMAN. So is Mr. Griswold responsible for the Gold King Mine spill?

Ms. MCCARTHY. I think the actions of EPA certainly caused the spill. It depends on what you think of "responsible." If that indicates that he did something wrong, I'm certainly not willing to say that.

Mr. WESTERMAN. So is he to blame for the Gold King Mine spill?

Ms. MCCARTHY. I think what's to blame is a history of those mines being left and abandoned where we knew there was a problem and EPA came in to try to help fix it. Did we fix it? No.

Mr. WESTERMAN. So who's to blame for the spill?

Ms. MCCARTHY. Well, the spill happened. The spill happened because we were doing preliminary—

Mr. WESTERMAN. Because somebody—

Ms. MCCARTHY. —work to try to resolve—

Mr. WESTERMAN. —failed in their execution of the project. Has Mr. Griswold been reprimanded or received training or a suspension for his role as onsite coordinator?

Ms. MCCARTHY. I do not believe so.

Mr. WESTERMAN. As head of the EPA, do you take responsibility for the spill?

Ms. MCCARTHY. I take responsibility for the agency's role, certainly I do.

Mr. WESTERMAN. So you take responsibility of the agency's role, which was to the on-scene coordinator, so I'm trying to connect the dots here.

Ms. MCCARTHY. So we have many responsibilities here, and we have a responsibility not just to explain ourselves why we're there, what we were doing, what we thought contributed to the problem. We have a responsibility to look at how we long-term monitor that situation. We have a responsibility to look at whether or not we can help effect a solution, which will be hopefully looking at whether or not it's appropriate for listing as a Superfund site. We have responsibilities to take a look at whether our notification was good and how to make it better.

Mr. WESTERMAN. Do you have a responsibility to hold somebody accountable?

Ms. MCCARTHY. If somebody did something that was incorrect and inappropriate—

Mr. WESTERMAN. That was last August. Has anybody been held accountable for the spill?

Ms. MCCARTHY. We are all held accountable for the spill. If you ask me whether I—

Mr. WESTERMAN. Has anyone been reprimanded or faced any consequences for their role—

Ms. MCCARTHY. Not that I'm aware of.

Mr. WESTERMAN. I've exceeded my time, Mr. Chairman. I yield back.

Chairman SMITH. Thank you, Mr. Westerman.

And the gentleman from California, Mr. Knight, is recognized for his questions.

Mr. KNIGHT. Thank you, Mr. Chair, and thank you, Administrator, for being here today.

Just a couple notes to clarify the record. Yes, Texas does have the most wind. There is no doubt about that, but California leads in solar by a huge, huge margin, and I think it's absolutely laughable that we think that 1.78 percent over the last year is great growth, but that is what we have.

You're aware that this Committee has been very active in attempting to understand the 2015 Ozone National Ambient Air Quality Standards. This Congress alone, we have held three hearings and sent numerous letters to EPA on the topic. Democrat Senator Michael Bennett stated that this ozone regulation is a perfect example of applying the law but doing it in a way that doesn't make sense on the ground. State air regulators from Texas, California, Arizona, and Utah have testified before Congress calling for a delay in implementation because EPA is unprepared to take background ozone into account when implementing the standard.

Now, I come from California, and it is very, very clear that ambient is a problem, that—that air standards that we do not have an effect on, that we did not create is a problem in California. The problem is, if we didn't create it and yet we are responsible for it because of standards, it makes it very, very difficult for us to be in compliance. In fact, we'll be out of compliance and we will be at a problem with these types of standards. The background ozone issue is one that is very important. Do you think that the EPA has adequately addressed the concerns of the states that have identified background ozone as an issue for compliance, much like California?

Ms. MCCARTHY. I think we have made great progress. Areas like California have actually a considerable amount of local and regional ozone that is being emitted by manmade activities, which falls well outside the boundaries of background. So we've held a conference. We've developed a white paper. We have put together, one a rulemaking, one a guidance that's been proposed and will be finalized to try to make it understandable and easier for states to take a look at wildfires that cause these types of exceedances. If we can document anything that's coming into nationally, we certainly recognize that that's not something that the state will be responsible for. So we think we've made a lot of progress, but as you know, we continue to work with states on the implementation.

Mr. KNIGHT. But you also understand that at certain states, and I won't be too over-the-top about California, but certain states do

have certain issues that other states just do not have. In fact today, we have major wildfires that are affecting the air that we breathe, and that is something that happens in California every summer without a doubt. We wish it didn't happen but it does happen, and——

Ms. MCCARTHY. Sir, that's why we're putting out a guidance document. We are well aware, and in fact, with the changing climate, we're concerned that those wildfires are going to be more expansive and more frequent.

Mr. KNIGHT. Well, we're afraid of those wildfires when certain people go out and start those fires, but one witness told the Committee that due to background ozone, EPA's new ozone standard will unfairly punish communities due to air pollution they did not create and that the state cannot regulate. The National Association of Counties stated, "Additionally, a more stringent ozone standard challenges local governments' ability to increase economic development within their regions because areas designated as nonattainment can have a more difficult time attracting industry to their counties due to concerns that permits and other approvals will be too expensive or even impossible to obtain." Many areas in California today, you basically cannot do any more activity there because they have gone to the limit. That means the credits are no longer there or the credits have been taken by other areas that are ports in the southern California are almost to the very limit of what they can do because of the credit situation.

Now, that's not EPA but that is exactly where I'm going with this with the standards that the EPA is setting, and that local or state areas are being the regulators for, much like in California because—and I'm sure in every state of this—of the diesel regulations that are coming that the EPA will or probably already is looking at regulations to change the diesel standards to have the states be in compliance.

Ms. MCCARTHY. Well, sir, I recognize that California has incredible challenges, and a lot of that is related to geography and the weather there, and I perfectly well understand it, but what we know about this ozone standard is that the vast majority of counties that aren't achieving the standard now will be achieving it just as a result of national rulemakings that are moving forward, ones that are already on the books and in place and that you well know of. So we're working hard with the states to get there.

But California's made tremendous progress, and they continue to look at every opportunity, and we'll keep working with them on it, but I don't think background is really the issue there. I think we've well documented the inventories that are contributing to the ozone problem and working hard with the state to see if we can figure that out.

Mr. KNIGHT. Well, I would agree that we have made many strides and I would agree that we have many challenges but I would disagree that background is an effort—or is a problem in California that basically we have to adhere to, just the West Coast, and it does affect all the way over to Arizona. It does come all the way over to states on the West that have to do that that other states do not have to, and I would appreciate looking into that a

lot harder, and making sure that this is not something that's just discriminatory toward the West Coast.

Ms. MCCARTHY. Thank you, sir.

Mr. KNIGHT. Thank you.

Chairman SMITH. Thank you, Mr. Knight.

And the gentleman from Illinois, Mr. LaHood, is recognized.

Mr. LAHOOD. Thank you, Mr. Chairman, and thank you, Administrator McCarthy, for being here. I know you've been here for over two hours, and appreciate your testimony here today.

I know a couple of my colleagues have asked about the proposed Waters of the U.S. Rule, and in my district in Illinois, I represent a fairly heavy ag district, and I think the frustrating part for me is, when I travel around my district and I talk to people, you know, they ask all the time, well, you know, Darrin, how did this law get passed, what happened, how did this law get implemented, and I explain to them that this isn't in fact a law, this is a rule implemented by EPA that really circumvents Congress and circumvents the Constitution in a lot of ways and that really unelected people are putting in this rule, and they also couple that with the real-world effect that this rule's going to have on agriculture, whether that's a puddle or it's a stream or it's a creek on a farmer's land. And when I travel around my district, I can't find anybody that thinks this is a good idea, and you look at a rule or a law or a statute as fixing a problem. No one in my district thinks that there's a problem that needs to be fixed.

And I would also point to you that back on October 9th of 2015, the Sixth Circuit Court of Appeals, second highest court in our country, issued a stay on implementation of the rule on the Waters of the U.S.

Ms. MCCARTHY. Yes.

Mr. LAHOOD. And that decision, written decision, stayed, that said this rule cannot go forward. In there, they specifically cite a significant legal question as to whether certain parts of this rule are supported by science. Now, that's not Republicans saying that on Capitol Hill. These are two independent judges, second highest court in the country saying this.

So when I look at that, I guess my question to you is, do you disagree with the court on the basis that this rule lacks science?

Ms. MCCARTHY. Well, far be it from me to disagree with the court. We are going and hopefully with the full information available that we have that the court will have through oral arguments and our briefings in the record that the court will agree with us that it is well documented why we came to the decisions we made on the basis of science, on the basis of history of ours and Army Corps' experience here.

You know, one of the biggest frustrations I have is that—is the fact that I think the agriculture community really—we would benefit from further discussions on this because we have actually expanded the exemptions for agriculture. We have provided clarifications that should allow them to produce the food, fuel and fibre that we rely on. We did everything we could to make sure that it wouldn't add any permitting issues or responsibilities to the agriculture community. We did everything we could not just to protect

their interests but to make their interests clearer and more sustainable.

Mr. LAHOOD. Well, I appreciate that, but I mean, again, that's not what the Farm Bureau says, that's not what the Illinois State Farm Bureau, the American Bureau says. I don't think you're going to get that from anybody in agriculture thinks the way you're doing it.

And I think the other thing is, there was lots of talk and rhetoric from the EPA and the Corps is, we're going to listen to your comments, give us all your comments, we're going to listen to them, we're going to take them into account, and I've seen the detailed merit-based comments that were given to you and your department and the Corps, and all of them in my estimation fell on deaf ears. None of them were taken into account when you look at the rule and how it's implemented and the effect that it has on them, and it's consistent in the agriculture community that people are absolutely opposed to this rule and the way that it's being put forth.

The other thing that I would mention, you know, this—as you implemented this rule, you abided by the Administrative Procedure Act, the APA, in doing that, and you testified back on March 4th, 2015, in the Senate, and Senator Sullivan from Alaska had asked you about the WOTUS rule, and you—concerning the APA Act and following that, and you said there have been—“There have been individuals represent various constituencies in the states that have commented but we have received over one million comments and 87 percent of those comments we have counted thus far are supportive of the rule.” I find that absolutely hard to believe. Is that still your statement today?

Ms. MCCARTHY. That is my understanding when folks looked at the record. That's correct.

Mr. LAHOOD. Eighty-seven percent is supportive of this rule across the country?

Ms. MCCARTHY. The comments, yes.

Mr. LAHOOD. And has that changed since then? That was your testimony on March 4th.

Ms. MCCARTHY. I don't know what—I haven't surveyed folks throughout the United States at this point to see whether or not they still would feel the same way.

Mr. LAHOOD. And can you name for me any agriculture groups that are supportive of this rule today?

Ms. MCCARTHY. I probably can't go down that road, sir. I know there's a lot of concern among the agriculture community. I think we've received certain letters and support from individuals. Whether or not there's any association, agriculture association, I can identify, I don't think I can.

Mr. LAHOOD. And my time is almost up. And you're also aware there's another Federal District Court in the Dakotas that has also issued a stay here for many of the same reasons that were done in the Sixth Circuit. I think that was at the federal district level. Are you aware of that also?

Ms. MCCARTHY. Yes.

Mr. LAHOOD. Thank you. Those are all my questions, Mr. Chairman.

Chairman SMITH. Thank you, Mr. LaHood.

And the gentleman from Louisiana, Mr. Abraham, is recognized.

Mr. ABRAHAM. Thank you, Mr. Chairman.

Ms. McCarthy, let's you and I pick up a discussion that we left off on a previous hearing. In one of your previous appearances, you testified that ozone exacerbates asthma.

Ms. MCCARTHY. Yes.

Mr. ABRAHAM. Yet you went on to specifically state, and I'm quoting here, that "the scientists actually have not made any connection between the levels of ozone and the prevalence of asthma," and Mr. Chairman, I'll ask to submit for the record a letter signed by many, many Members of the House and Senate that questions EPA's anticipated health benefits.

Chairman SMITH. Okay. Without objection, that will be made a part of the record.

[The information appears in Appendix]

Mr. ABRAHAM. Ms. McCarthy, are you familiar with some of the other factors that can exacerbate asthma other than ozone as the EPA claims?

Ms. MCCARTHY. Sure.

Mr. ABRAHAM. Would you elaborate, please?

Ms. MCCARTHY. Well, certainly. There are—we have an entire asthma portion of our agency that works with local communities to identify triggers for asthma attacks. That can have everything to do with dust in individuals' homes, so indoor air contributes significantly.

Mr. ABRAHAM. And what is the role of indoor pollution in asthma, in your opinion? What role that does that indoor pollution play?

Ms. MCCARTHY. Mold and dust can certainly be triggers for asthma attacks.

Mr. ABRAHAM. So they can exacerbate it?

Ms. MCCARTHY. They certainly can.

Mr. ABRAHAM. I mean, you know, I'm a doc and I've treated children with asthma for 20-plus years, and you know, I'll just read a partial list from the CDC and from medical textbooks that are exacerbators of asthma: plant pollen, pet dander, dust, dust mite feces, cockroach feces, insect bites, mold, eggs, peanuts, soy, wheat, fish, shrimp, salads, fruits, respiratory infections, cold air, exercise, certain medications including aspirin, ibuprofen and naproxen, sulfites and preservatives in foods, and the list goes on and on.

I guess the question that this leads to, you were having a discussion with Mr. Tonko about the benefits of cardiovascular disease with possibly ozone. I guess you believe it maybe exacerbates that. Did the EPA's final ozone NAAQS regulation take into consideration all these additional factors in its analysis to determine if a new standard needs to be implemented at this time?

Ms. MCCARTHY. Actually, my understanding is that during the development of our Integrated Science Assessment, the look at all of the health and exposure information would have looked to determine whether or not outside ozone levels contributed to additional attacks or hospital visits and other things. So they would have factored those issues into those considerations.

Mr. ABRAHAM. And you know, let me remind you that, again, we had this back and forth last year, that the ozone levels have de-

creased dramatically over the last three decades yet asthma has gone up, and after all these years, you or your advisors have never really managed to connect those dots and look into the indoor air pollution aspect of it.

Ms. MCCARTHY. Sir, you just indicated how many factors go into asthma attacks. The issue—the point I'm making is that it seems very clear from the science that outdoor ozone levels cause problems for kids who have asthma. That seems pretty clear to me.

Mr. ABRAHAM. And again, I could probably debate that on another day on an issue as far as, you know, I've seen some of your data that you rely on but I've seen other data that would refute that most mightily, let me say.

What did your advisors say specifically about the issues of indoor air pollution and asthma?

Ms. MCCARTHY. I do not believe that the information provided to me in terms of the science spent a great deal of time talking about indoor asthma.

Mr. ABRAHAM. So I mean—

Ms. MCCARTHY. It talked about outdoor asthma, which is what we were looking at—

Mr. ABRAHAM. And I guess that's my point. You know, how can the EPA's analysis, how can you say it's complete if, you know, your advisors have really failed to address this issue—

Ms. MCCARTHY. No, sir.

Mr. ABRAHAM. —and failed to understand the importance of indoor air pollution on these poor children.

Ms. MCCARTHY. Because their reports to me looked at thousands of studies that actually did factor in different considerations that concluded based on the weight of evidence that ozone contributes to exacerbating asthma attacks. I don't know how much clearer I can get.

Mr. ABRAHAM. Well, I can be much clearer myself because I've seen thousands of studies also that would refute your scientific basis, and that's where we, I think, diametrically oppose each other is on your, what I will put in quotes, objective scientific data. I think it's flawed, and I think we can refute it on every level and turn. And again, nobody here wants to see a child's asthma get worse. We don't even want a child ever to have asthma. But I think we have to be honest and fair with the child and the family as to what's causing it, and again, I don't think we're addressing that fully.

Ms. MCCARTHY. I think we've established that causal relationship.

Mr. ABRAHAM. I yield back, Mr. Chairman.

Chairman SMITH. Thank you, Mr. Abraham.

And the gentleman from Illinois, Mr. Hultgren, is recognized.

Mr. HULTGREN. Thank you, Mr. Chairman. Thank you, Administrator.

I'd like to first submit for the record the following bipartisan letter from members of the Illinois delegation, both Republicans and Democrats, regarding the proposed closure of two nuclear power plants. A state report found—and I'd ask to submit that to the record.

Chairman SMITH. Without objection, it will be made a part of the record.

[The information appears in Appendix]

Mr. HULTGREN. Thank you.

A state report found that Illinois would lose 4,200 jobs and \$1.2 billion in annual economic activity as well as significant increases in electricity rates and carbon emissions if these two plants closed their doors. Such a result would be bad for the State of Illinois and devastating for the communities in which they operate.

The premature closure of these plants would also significantly impede the ability of the state to submit a viable implementation plan for the Clean Power Plan should the Supreme Court stay be lifted and the rule remain. As a matter of fact, even if the stay of the Clean Power Plan is lifted, I'm concerned that Illinois will fail to meet the plan even though the state may do everything possible in its power to meet it.

Does this news concern you, Administrator?

Ms. MCCARTHY. It certainly is an issue that we'd like and be open to working with the state at any time on. I think we well knew that there are many older nuclear power plants that right now are not called upon regularly to generate, so the closure of those facilities will have to be considered by the states, and we made that pretty clear. But I do not think that we have made the Clean Power Plan standards so challenging that states cannot address the changing circumstances.

Mr. HULTGREN. That's not what we're hearing from Illinois, but let me ask you, how did EPA take into account existing nuclear power when designing the mandates you're sending to the states for carbon emission reduction? Seems like we're being penalized for being ahead of the curve.

Ms. MCCARTHY. No. Actually—well, I don't believe we considered it to be penalized, but we were looking for were reductions that were achievable on a baseline of 2012. If those were producing electricity, we included those in the baseline. If they were new facilities, which there are some new nuclears being constructed, those would certainly go as counting towards reductions that would be achievable under the law that would be included or compliance purposes.

Mr. HULTGREN. It seems like the goal again of what you've stated of, you know, reducing carbon emission, exactly the opposite is going to be happening with potential closure of these Illinois plants plus certainly the loss of a significant number of jobs. And again, this is bipartisan. This isn't a Republican issue, it's not a Democratic issue. It was split exactly 50/50, Members from Illinois on both sides of the aisle concerned about that.

Are you concerned what's happening in Illinois may happen in other states, making it more difficult to comply with the plan?

Ms. MCCARTHY. Sir, again, we made the plan to be extraordinarily flexible to deal with things on an individual state basis, regionally, nationally—

Mr. HULTGREN. Well, let's—can you get into specifics on that? What flexibilities specifically will states have in this specific kind of incident? So these two plants in Illinois, what specific flexibility will they have to be able to remain and continue to provide great

service? Illinois is again one of the leaders in this field, very successfully so. What flexibility is in the plan?

Ms. MCCARTHY. I can't say I know all of the circumstances here, sir, but I do know that—my understanding is, there was a lot of concern about nuclear facilities potentially being closed. There was a lot of discussion about individual states taking action to keep them open, to support upgrades and needed construction at those facilities to allow them to stay open for certain longer periods. But those are all individual state decisions that get made in the individual market. I don't think we should suggest that the Clean Power Plan is going to solve those problems prematurely because there's no compliance window until beginning in 2022—

Mr. HULTGREN. Well, you mentioned there is flexibility there.

Ms. MCCARTHY. There is.

Mr. HULTGREN. We're just not seeing it, and there's great concern. Again, both sides of the aisle have grave concern of negative impacts, exactly the opposite of what you're trying to accomplish.

Ms. MCCARTHY. Can I just—

Mr. HULTGREN. I only have one minute left. Let me—have you requested any legal analysis to ensure that the agency has the legal authority to pursue and expend resources on regulatory actions and implementation of the Clean Power Plan while a stay has been issued?

Ms. MCCARTHY. We have certainly been consulting in close coordination with the Department of Justice to make sure that we fully comply with the stay, and we are fully complying with the stay.

Mr. HULTGREN. The question was, have you received any legal analysis to ensure that the agency has the legal authority to pursue and expend resources on regulatory actions and implementation while the stay is in? So it's not complying with the stay, it's—

Ms. MCCARTHY. We are not implementing the rule or spending resources to implement the rule.

Mr. HULTGREN. Are you moving forward with model trading rules?

Ms. MCCARTHY. There's no decision that's been made. We're looking at—

Mr. HULTGREN. When will that decision be made?

Ms. MCCARTHY. —what's appropriate and what path needs to be moved forward.

Let me provide a little bit of clarity, sir, and that is that we are not implementing the rule. That does not mean that we cannot continue to support states that voluntarily want to keep moving forward and ask us to develop tools that would allow them to hit the ground running when the stay decision is made.

Mr. HULTGREN. As far as the model trading rule goes, doesn't this deprive states and other stakeholders the benefits of the stay by compelling participation on a matter that is still pending before the courts?

Ms. MCCARTHY. We're not compelling anything. There is no implementation of the Clean Power Plan.

Mr. HULTGREN. So the model trading rules are not moving forward?

Ms. MCCARTHY. I do not know whether we're going to move forward with the model trading rule. The model trading rule is a tool. It is not a requirement. Whether or not we move forward with that tool is something we'll discuss with DOJ but we will not risk anything that would show the court that we are doing anything other than fully complying with the stay.

Mr. HULTGREN. My time's expired. I yield back. Thank you, Mr. Chairman.

Chairman SMITH. Thank you, Mr. Hultgren, and the gentlewoman from Virginia, Mrs. Comstock, is recognized for her questions.

Mrs. COMSTOCK. Thank you, Mr. Chairman, and I thank you for convening this hearing, and it's been very interesting for me to hear some of the highlights from my other colleagues.

I wanted to call attention to a decision by the EPA a few years ago that would have had a detrimental impact on Fairfax County, which is a significant part of my district. In 2011, the EPA attempted to regulate water by considering the stormwater runoff from a local creek as a pollutant, so the EPA was—you're going to regulate the stormwater runoff, and when this new regulation was first released, officials from Virginia Department of Transportation estimated the cost of compliance would have been \$70 million for the commonwealth. It would have had to do a lot of structural purchases and new management structures. In addition, Fairfax County officials said they would have to adopt costly and impractical new standards to reduce stormwater runoff, which would have at least cost the county \$300 million and up to \$500 million according to our county officials. So I can imagine \$500 million is a pretty huge budget in a county budget. Just to give you an idea, our school budget in 2012 around this time frame was \$2.2 billion, so that would have been almost a quarter of the school budget that would have been required to divert to these regulations.

In this instance, and I would like to highlight, it was a Democrat-controlled county. I think only a couple of supervisors who are even Republican there. But they teamed up with our then-Republican, an arch conservative attorney general, and you know, at the time, the Democrat chairman said, you know, a lot of people were scratching their heads over that but she said we're willing to spend money to protect our watersheds, our drinking water and the Chesapeake Bay but we want to make sure the money is well spent. In this case, she said the EPA's rule would've done nothing to help the environment because they were already doing things that were going to work better than the rules that were going to cost us up to \$500 million.

Fortunately in that lawsuit, we did prevail. Fairfax County prevailed, the state prevailed, and I appreciate that the EPA did not decide to appeal that case. But, you know, in sitting and listening here today, we're hearing so many times where this is costing our local communities. I mean, while I appreciate my county didn't have to spend \$300 to \$500 million and cut into budget and muscle and firefighters and police and all those other things, they certainly did have to cut into their budgets to take those lawsuits as did the state, certainly a lot less than \$300 to \$500 million.

But when you have things like this, and fortunately, it was Fairfax County who did this, who had the resources to bring that lawsuit. You know, another county might not have those kind of resources. I mean, do you look at that kind of impact and the economic impact when you're doing this, and what would you tell a county when it was going to cost them \$500 million but didn't have the resources to sue the EPA and prevail the way they did?

Ms. MCCARTHY. Well, Congresswoman, I don't know the exact rules that you're talking about or a decision that was in dispute. You know, we do our best to make sure that we are considering the individual circumstances of states and communities. We actually have policies in place which guide us in doing that when we're dealing with—

Mrs. COMSTOCK. Well, in this case, the judge said you are overreaching your authority, and I think the fact that EPA did not appeal probably was a recognition of that, but unfortunately, not everyone can take those actions. So this kind of overreaching, you know, what does the county that can't afford to deal with your overreaching to do?

Ms. MCCARTHY. Well, I don't know the circumstances. I apologize for that, but I'm not aware of the circumstances that you're talking about so I can't really speak to it directly.

Mrs. COMSTOCK. Well, I certainly think these kind of costs, and I think all of my colleagues have highlighted these very well, have a dramatic impact on local budgets and oftentimes local budgets—and we're talking schools. When you're talking a county and you come in and do that, you're talking about cutting our schools, unless you have any ideas. I mean, when half of a county's budget, sometimes more—you know, in Loudoun County, it's higher than half. So if you'd gone in and done the same in that county, it would have cut even more.

So I'd like you to, when you're looking at these things, understand the limited budgets you're dealing with. It's asking our firefighters, our teachers, our local officials to say we're going to cut you for something that our local Democrat chairman of the board of supervisors said did nothing to help the environment. Nothing. That's a big cost to do nothing to help the environment when we already had some very good practices in place.

Thank you, and I yield back.

Chairman SMITH. Thank you, Mrs. Comstock.

And I believe that is all the members who are present and they have asked their questions, so that takes us to the end of our hearing today.

And Administrator McCarthy, you have reassured several members today that you will produce the documents and data that we have requested. I hope you meant that because we have a lot of requests that are still outstanding. So I look forward to your responsiveness in that regard.

Thank you for being here today. I appreciate your taking the time to testify, and we will be following up with some of our questions as well.

Ms. MCCARTHY. Thank you.

Chairman SMITH. Thank you for being here.

Ms. JOHNSON. Mr. Chairman?

Chairman SMITH. And the gentlewoman from Texas has request that some items be made a part of the record.

Ms. JOHNSON. Yes.

Chairman SMITH. And she is recognized for that purpose.

Ms. JOHNSON. Thank you very much.

I ask unanimous consent to make the NAACP letter a part of the record, and simply want to thank the Administrator for being here today and being questioned for two and a half hours.

Chairman SMITH. Without objection, those letters will be made a part of the record.

[The information appears in Appendix]

Chairman SMITH. Thank you.

Ms. MCCARTHY. Thank you.

[Whereupon, at 3:35 p.m., the Committee was adjourned.]

Appendix I

ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

Responses by The Hon. Gina McCarthy

QUESTIONS FOR THE RECORD
The Honorable Lamar Smith (R-TX)
U.S. House Committee on Science, Space, and Technology

Ensuring Sound Science at EPA

Monday, August 01, 2016

Questions for Administrator McCarthy

1. In testimony, EPA Administrator McCarthy said that the CARC report on glyphosate was "one step in the process" and that the issue is still "in review at the Agency." The CARC report found that "In accordance with the 2005 Guidelines for Carcinogen Risk Assessment, based on the weight-of evidence, glyphosate is classified as 'Not Likely to be Carcinogenic to Humans.'" This finding by CARC supports previous conclusions by the EPA that glyphosate is safe.

a. Why does the EPA feel that additional review beyond the CARC report is necessary?

A: The CARC document is one piece of information that the agency is using to inform the cancer classification for glyphosate. The agency is also receiving input from experts at the EPA and across the government, and will get further input from the peer-review process and public comment period.

The Cancer Assessment Review Committee (CARC) report was completed in October 2015 and reflects the panel's review of the existing cancer database for glyphosate at that point in time. The CARC report considered data identified by the International Agency for Research on Cancer (IARC) in its August 2015 monograph. Since then, EPA has been made aware of other existing glyphosate cancer studies submitted to the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and the European Food Safety Authority (EFSA) to which EPA previously did not have access. EPA is undertaking a comprehensive and thorough review of the cancer database for glyphosate and is currently evaluating the new information available, including data from over 170 epidemiological, animal, and genotoxicity studies not previously available to the agency.

b. Has anyone at the EPA raised concerns with the work of CARC or with their findings in regard to glyphosate?

A: EPA is working collaboratively with experts on the comprehensive review of the cancer database and the new information. The agency aims to ensure that the data and methodology used in its risk assessment reflects EPA's commitment to quality science.

c. What specific additional steps is the EPA planning on taking in its review of glyphosate?

A: EPA is in the process of rescheduling a meeting of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) to consider and review EPA's Evaluation of the Carcinogenic Potential of Glyphosate. The meeting had been originally scheduled for mid-October 2016, but had to be postponed due to the availability of epidemiology experts. In September, the agency published for review discussion documents, which include the agency's proposed cancer classification, at <https://www.epa.gov/sap/meeting-materials-october-18-21-2016-scientific-advisory-panel>. After the meeting, the peer review panel will have 90 days to provide EPA with a written report. In spring 2017, once EPA has reviewed the report and made any necessary changes in its risk assessment, EPA expects to release all the components of its full human health and ecological risk assessments for a 60-day public comment period. Once public comments have been reviewed, EPA expects to publish a Proposed Interim Registration Review Decision that may detail specific risk mitigation measures for glyphosate, if needed. The Proposed Interim Registration Review Decision for glyphosate will be available for another 60-day public comment period. An Interim Registration Review Decision will be issued after public comments are considered.

2. The CARC report was dated October 1, 2015, marked final, and signed by all of its authors. Can you explain why the EPA sat on this report for over six months before it was "inadvertently" published online? When, if ever, was the EPA planning on making the CARC report public?

A: As a general practice, we do not publish individual components of risk assessments, for example a cancer assessment, until the entire risk assessment has been completed. In the case of glyphosate, questions were raised about the conclusions of the CARC report and so the EPA conducted a systematic review, to be reviewed by a FIFRA Scientific Advisory Panel, to ensure that our cancer assessment considered all relevant data and was transparent in its interpretations of the agency's cancer guidelines. The EPA posted the "Glyphosate Issue Paper: Evaluation of Carcinogenic Potential" and supporting materials, including the October 2015 CARC report, in September 2016 in preparation for the peer review meeting. In this case, since the agency is taking scientific analysis supporting the proposed cancer classification to a peer review, the relevant components were released ahead of the entire risk assessment. It is worth noting that even based on the more robust scientific dataset, the final conclusion of the September 2016 document did not change from the CARC report.

3. In April 2015, Carissa Cyran, the chemical review manager for the Office of Pesticide Programs at EPA, told the news media "In a few months, EPA will be releasing for

public comment our preliminary human health risk assessment for glyphosate as part of our research program to re-evaluate all pesticides periodically." Over a year later, the public is still waiting for the EPA's review of glyphosate. According to testimony given by EPA Administrator McCarthy, the Agency is now targeting fall 2016 for its release. Can you explain the reason for these on-going delays?

A: As explained previously, EPA originally intended to publish the glyphosate human health and ecological risk assessments for public comment in summer 2015. However, publication was delayed due to additional information and data that became available in 2015 and 2016 from various international organizations. EPA is in the process of reviewing the additional information prior to publication of its own risk assessment, which is currently scheduled for spring 2017.

4. According to Administrator McCarthy, Jesudosh "Jess" Rowland, Deputy Director, Office of Pesticide Programs, Health Effects Division, and lead author of the CARC report on glyphosate, retired from the agency in May 2016. This means that he retired shortly after the CARC report was published and then removed from the website.

a. When did Rowland make the EPA aware of his retirement?

A: He had been discussing retirement for about a year but officially announced it in February 2016.

b. Did Rowland retire on his own accord?

A: Yes.

c. Does Rowland's retirement have anything to do with the CARC report on glyphosate?

A: No.

5. CARC's report not only found that glyphosate is not likely to be carcinogenic, but was also critical of the International Agency for Research on Cancer (IARC) monograph on glyphosate. Two officials from the EPA, Mathew Martin and Peter Egeghy, participated in the IARC monograph on glyphosate.

a. Are there are internal conflicts or disagreements between EPA staff over CARC's review of glyphosate?

A: Questions were raised about the conclusions of the CARC report and so the EPA conducted a systematic review, to be reviewed by a FIFRA Scientific Advisory Panel, to ensure that our cancer assessment considered all relevant data and was transparent in its interpretations of the agency's cancer guidelines. It is worth noting that even based on the

more robust scientific dataset, the final conclusion of the September 2016 document did not change from the CARC report.

6. A letter dated August 31, 2015 from members of this Committee raised concerns that the ozone rule was based on a single study of only 31 individuals.
 - a. Given the unreliability of such a small sample size of this study, what assurances can you give the American people that the costs this rule will impose on communities across the nation are grounded in a well-founded scientific basis?
 - b. Were additional studies omitted from the decision making process that produced contrary results to the outcome of the rulemaking? If yes, which studies were specifically omitted?

A: The decision to set the level of the 2015 O₃ NAAQS at 70 ppb was based on consideration of the full body of health evidence, including controlled human exposure and epidemiologic studies, quantitative analyses of ozone exposures and health risks, advice from CASAC, and public comments. The new evidence in this review includes controlled human exposure studies where healthy people are exposed to ozone under controlled conditions. These types of studies provide the strongest evidence about health effects associated with ozone, and several of these studies indicate the occurrence of respiratory effects following exposures to ozone concentrations below 75 ppb. The new studies considered are most fully described in the Integrated Science Assessment (<http://www.epa.gov/isa/integrated-science-assessment-isa-ozone>) and are summarized in the overview of the health effects evidence starting on page 65302 of the final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf). The EPA discussed its use of the results of controlled human exposure studies as part of the basis for the proposed decision starting on page 65317 of the final rule, responded to comments on the use of controlled human exposure studies in the section on the need for revision of the 2008 standard starting on page 65329 of the final rule, and responded to comments on the use of the controlled human exposure studies in the revisions to the level of the primary standard starting on page 65356 of the final rule.

7. In our recent committee hearing, Administrator McCarthy alluded to a “weight-of-evidence” approach generated from a “thousand” of studies conducted over decades. Can EPA provide references to the “thousands” of studies conducted on ozone that were taken into consideration for this “weight-of-evidence” approach?

A: The new studies that were considered are most fully described in the Integrated Science Assessment (<http://www.epa.gov/isa/integrated-science-assessment-isa-ozone>), and are summarized in the overview of the health effects evidence starting on page 65302 of the 2015 final National Ambient Air Quality Standards for ozone (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf).

**House Science, Space, and Technology Committee
Question for the Record to the U.S. Environmental Protection Agency
Congressman Barry Loudermilk (GA-11)**

Dear Administrator McCarthy,

I am concerned that the Environmental Protection Agency's (Agency's) broad interpretation of its authority under the Clean Air Act would mean that the Agency believes it can define virtually anything that is within a motor vehicle as constituting a motor vehicle in and of itself.

Throughout the July 13, 2015 Notice of Proposed Rulemaking regarding Greenhouse Gas Phase 2, the Agency relies extensively on its Clean Air Act Section 202 grant of general authority to regulate mobile source emissions as providing a grant of authority to specifically regulate "motor vehicles", which are defined in 42 USC 7550(b) ("The term 'motor vehicle' means any *self-propelled* vehicle designed for transporting persons or property on a street or highway.")

Under this definition, the plain meaning of 'motor vehicle' would logically appear to apply only to a vehicle that moves under its own motive power.

But when respondents questioned whether the Agency possesses Clean Air Act authority to regulate manufacturers of motor vehicle parts that do not "self-propel" and do not even produce emissions, the agency in reply seems to teeter back and forth between an assertion that individual parts are individual "motor vehicles", while also arguing the sum of the respective parts in total are what create a "motor vehicle". At one point, the Agency argues that having "detachable parts does not mean that either of the parts is not a motor vehicle" (FR Vol. 80, No. 133, 40170). But saying what a thing does not mean fails to prove that the thing does actually mean what the Agency wishes to assert. In fact, it fails to prove that the individual parts are also individual "motor vehicles". If this was to be the case, then a single motor vehicle must be made up of multiple motor vehicles, a curious claim especially considering that some of those supposed motor vehicles are unable to actually self-propel as the definition requires.

The Agency then makes a sum of the parts claim, arguing that when the unit is eventually connected it becomes a "self-propelled vehicle" that meets the definition. In a footnote, the Agency mocks the idea of considering the individual pieces of equipment as individual pieces of equipment ("Indeed, an argument that a trailer is not a motor vehicle because, considered (artificially) as a separate piece of equipment it is not self-propelled, applies equally to the cab-chassis- the tractor. No entity has suggested that tractors are not motor vehicles; nor is such an argument plausible.") But the Agency has previously acknowledged that the individual parts manufacturers and dealers are not the individuals who will actually connect the detachable parts to create a self-propelled unit. (See FR, Vol. 76, No. 179, September 15, 2011 at 57115, "In general, the heavy-duty combination tractor industry consists of tractor manufacturers (which manufacture the tractor and purchase and install the engine) and trailer manufacturers. These manufacturers are usually not the same entity. We are not aware of any manufacturer that typically assembles both the finished truck and the trailer and introduces the combination into commerce for sale to a buyer... There are also large differences in the kinds of manufacturers involved with producing tractors and trailers.")

Elsewhere, EPA veers back to the individual parts argument, claiming that the parts of a "heavy duty vehicle" are "part of a 'motor vehicle.'" But, once again, proving a part is in fact a part does not seem to prove that it is also a "motor vehicle" in and of itself, especially if it is unable to self-propel.

The Agency then states that its definition of "motor vehicle" is consistent with its prior interpretation, suggesting a reasonably long and settled history on the matter. But to buttress its point, the Agency only provided one example of guidance, which dates back only one year despite a lengthy history of the Agency's Clean Air Act interpretation and enforcement. Additionally, the Agency claims that it has regulated other parts in other rulemakings and that those parts makers did not object- although non-objection does not prove the Agency possesses the authority it claims to possess. It simply proves that the objection was not previously raised. Finally, the Agency even relies on its own proposed definition under 40 CFR 1037.801 of "vehicle" to prove a point as though its own proposed regulatory interpretation constitutes a grant of legislative authority.

I am concerned that the Agency believes that there is little or no limit to its authority to interpret the Clean Air Act as it sees fit. Where does the Agency draw the line? Does a glass window constitute a "motor vehicle"? Does an individual axle constitute a "motor vehicle"? Does a turn signal constitute a "motor vehicle"? None of those parts are even detachable from the motor vehicle, but all are necessary to pull freight.

Does the Agency believe its authority is without limit regarding which individual parts will eventually go into a temporarily connected unit that the Agency can regulate as individual motor vehicles where each individual part is the same thing as is the sum of all the parts?

Thank you, and I look forward to your response.

A: The final standards for heavy-duty vehicles and engines (81 FR 73478, October 25, 2016) contain emission standards for trailers. The EPA explained that a trailer is an incomplete motor vehicle, and not just a motor vehicle part, and documented that the Clean Air Act provides standard-setting authority over incomplete motor vehicles. The EPA also disclaimed authority to regulate motor vehicle parts as motor vehicles, and specifically stated (in the first chapter of the Response to Comments document (<https://www3.epa.gov/otaq/climate/documents/420r16901.pdf>)) that tires are motor vehicle parts and hence not within the EPA's standard setting authority for motor vehicles. Thus, the EPA has not asserted authority to regulate individual motor vehicle parts as vehicles.

The preamble to the final rule (section I.F) addresses the question you raise as to where a line is to be drawn between motor vehicles (complete and incomplete) and motor vehicle parts. Rather than paraphrase, here is what the EPA said with regard to that issue:

“EPA thus can set standards for all or just a portion of the motor vehicle notwithstanding that an incomplete motor vehicle may not yet be self-propelled. This is not to say that the Act authorizes emission standards for any part of a motor vehicle, however insignificant. Under the Act it is reasonable to consider both the significance of the components in comparison to the entire vehicle and the significance of the components for achieving emissions reductions. A vehicle that is complete except for an ignition switch can be subject to standards even though it is not self-propelled. Likewise, as just noted, vehicle components that are significant for controlling evaporative emissions can be subject to standards even though in isolation the components are not self-propelled. However, not every individual component of a complete vehicle can be subjected to standards as an incomplete vehicle. To reflect these considerations, EPA is adopting provisions stating that a trailer is a vehicle ‘when it has a frame with one or more axles attached’..... EPA acknowledges that lines need to be drawn, but whether looking at the relation between the incomplete vehicle and the complete vehicle, or looking at the relation between the incomplete vehicle and the emissions control requirements, it is evident that trailers and glider kits should properly be treated as vehicles, albeit incomplete ones. They properly fall on the vehicle side of the line. When one finishes assembling a whole aggregation of parts to make a finished section of the vehicle (e.g. the trailer), that is sufficient. You have an entire, complete section made up of assembled parts. Everything needed to be a trailer is complete.”

Committee on Science, Space & Technology

“Ensuring Sound Science at EPA”

Questions for the Record to:

The Honorable Gina McCarthy, Administrator, Environmental Protection Agency
Submitted by Ranking Member Eddie Bernice Johnson

- 1) When industry advocates come to Capitol Hill, the issue of regulatory certainty is routinely brought up. We often hear that a strong market signal allows for smart investment and risk management.
 - o Can you discuss the importance of regulatory certainty and the value of a strong market signal to businesses?
 - o Overall, what impact do you believe that EPA’s current set of proposed regulations would have on the U.S. business community?
 - o Would the recommendation by some that we place a moratorium on so-called “midnight regulations” increase or decrease regulatory certainty and private sector investments?

A: EPA also generally hears from industry a preference for regulatory certainty and the importance of understanding the requirements that will need to be met. History has shown that with regard to environmental regulations, industry has routinely been able to comply at a lower cost than was predicted. For example, in 1990, EPA estimated that the cost of compliance with Title IV of the Clean Air Act Amendments of 1990 would be as high as \$5.9 billion a year. Three subsequent retrospective studies done by MIT, Resources for the Future, and Stanford University researchers, as detailed in the U.S. government’s National Acid Precipitation Assessment Program (NAPAP) 2011 Report to Congress, all conclude the costs were less than half of EPA’s estimate. The dramatic improvements in clean air from implementation of the Clean Air Act has also generated huge public health benefits. EPA estimates that air quality improvements led to 160,000 premature deaths averted each year and that total benefits from the Clean Air Act implementation exceeds costs by a factor of more than thirty to one. History shows us that it is possible to protect public health and the environment while maintaining a strong economy, and that remains true today.

Regulatory certainty provides industry with the signal to enable smart investment and risk management. For example, it is much easier to design-in compliance before a new facility is constructed. Even routine technology upgrades can be stifled if industry is uncertain about the regulatory requirements. A moratorium on EPA’s proposed regulations could substantially increase regulatory uncertainty, potentially chilling investment decisions.

Finalizing EPA's currently proposed regulations would provide clarity to key industries. Conversely, the public health benefits of these rules as well as the related investments would not occur if the rules were to be delayed. For example, the final fuel economy standards for Heavy Duty trucks, announced jointly by EPA and the Department of Transportation on August 16, 2016, will reduce harmful carbon pollution and motivate truck manufacturers to invest in new technologies. Overall, the final standards are estimated to provide \$230 billion in net benefits to society, including benefits to our climate and the public health of Americans. These benefits are estimated to outweigh costs by about an 8-to-1 ratio. Manufacturers all along the heavy duty value chain now have clarity about what will be required through FY 2027 and, especially with the flexibilities provided in the rule, can plan investment for their compliance strategies with real certainty.

- 2) Why is the Clean Power Plan a lawful exercise of EPA's authority under the Clean Air Act? What is the impact of any delays in its implementation?

A: On February 9, 2016, the Supreme Court stayed the Clean Power Plan (CPP) pending judicial review before the U.S. Court of Appeals for the D.C. Circuit and any subsequent proceedings in the Supreme Court. The EPA firmly believes the Clean Power Plan will be upheld when the courts address its merits because the Clean Power Plan rests on strong scientific and legal foundations. The stay means that no one has to comply with the Clean Power Plan while the stay is in effect. During the pendency of the stay, states are not required to submit anything to the EPA, and the EPA will not take any action to impose or enforce any such obligations. For example, the agency has clearly communicated to states that they are not required to make initial submittals on September 6, 2016.

Since the stay was issued, many states have said they intend to move forward voluntarily to continue to work to cut carbon pollution from power plants and are seeking the agency's guidance and assistance. The agency will be providing such assistance, which is not precluded by the stay. In particular, they have asked us to move forward with our outreach and to continue providing support and developing tools, including the Clean Energy Incentive Program (CEIP), the proposed model rules, and the proposed evaluation, measurement and verification (EM&V) guidance. For example, on April 28, 2016, a group of 14 state environmental agency officials wrote to the EPA to request that we provide a final model rule or rules, additional information on the Clean Energy Incentive Program, and other information and assistance. The EPA has received significant feedback on the CEIP and comment on the proposed model rules and EM&V guidance. The agency will move forward developing these actions in a way that is consistent with the stay while providing states the tools they have asked for to help address carbon pollution from power plants. For example, on June 16, 2016, the agency issued a proposed rule for public review and comment that includes details about the optional Clean Energy Incentive Program.

This will help guide states and tribes that choose to participate in the program when the Clean Power Plan becomes effective.

Addressing carbon pollution is a part of the EPA's obligations under the Clean Air Act. Further, the Clean Air Act directs the EPA to engage with states and other stakeholders and to provide technical and financial assistance on all aspects of air pollution prevention and control.

For the states that voluntarily continue work to cut carbon pollution from power plants and seek the agency's guidance and assistance, the EPA will continue to provide tools and support and technical assistance. The EPA also expects to continue to develop electronic systems to support state plan development activities, and other guidance, as appropriate, to support and respond to state needs. Such guidance may include information regarding evaluation, measurement, and verification of energy savings and emissions reductions.

- 3) There have been numerous claims that the Clean Power Plan alone will not significantly affect climate change. As we know, the Clean Power Plan is but one component of a larger national effort to reduce greenhouse gas emissions which is being carried out in conjunction with the regulatory actions taken by the rest of the world.
 - o How does the Clean Power Plan fit into the national and global efforts to reduce greenhouse gas emissions?
 - o Do you believe that the Administration's efforts to advance the Clean Power Plan were an important factor in securing the necessary global commitments to mitigate the impacts of climate change in Paris last year?
 - o If the next Administration initiated the withdrawal of the Clean Power Plan rule without a significant replacement to address climate change, how might that impact this global agreement? How might it impact U.S. credibility in advancing other international environmental actions going forward?

A: The Clean Power Plan is only one component of a broad set of domestic actions this Administration has put in place or is in the process of putting in place to reduce GHG emissions. These include vehicle fuel economy standards, energy efficiency standards, methane-reducing regulations, restrictions on HFC uses, climate-friendly land management incentives, to name a few. These domestic actions collectively, combined with similar measures in other major economies, contributed to the cooperative tone witnessed in Paris last December.

EPA firmly believes the Clean Power Plan will be upheld when the merits are considered because the rule rests on strong scientific and legal foundations. Regardless, Paris is a long-term global framework, unlike Copenhagen or Kyoto, with iterative rounds of targets every five years. When we sign up to Paris, it means we're in for the long haul. And the United States remains dedicated to phasing down our domestic emissions in keeping with our international commitments.

- 4) In previous hearings we have heard opponents of the Clean Power Plan cite increased electricity costs as an argument against the rule.
 - o Can you please discuss the benefits consumers will likely see from improved energy efficiency standards?
 - o Can you also discuss the important role energy efficiency will play in transitioning to a lower carbon economy?

A: In the CPP, EPA did not base the amount of emission reductions fossil fuel-fired power plants are required to achieve on demand-side energy efficiency (EE). However, sources and states may implement EE programs for compliance purposes, and EPA's analysis indicates that because those programs are generally the least cost means to comply, in fact, sources and states can be expected to implement them (see the Regulatory Impact Analysis for the CPP Final Rule: <https://www.epa.gov/cleanpowerplan/clean-power-plan-final-rule-regulatory-impact-analysis>). With energy efficiency as part of the suite of available compliance strategies, EPA analysis indicates average reductions in electricity bills are projected to be 7-8% in 2030. EE policies are currently used in all 50 states and are leading to significant CO₂ reductions from power plants. In 2015, EE program savings reported to the Energy Information Administration reduced U.S. electricity demand by 5% and the savings are growing at a rapid pace.

- 5) Some critics of the Clean Air Act have claimed that the EPA does not have authority to regulate carbon dioxide emission from power plants under section 111(d) of the Clean Air Act because it can only regulate power plants under section 112 of the CAA.
 - o How would you respond to this criticism?

A: The legal argument in your question is being litigated as part of this judicial review, but it is our reading of the statutory text that it bars EPA from regulating a source category for the same pollutant under both Section 111(d) and Section 112. Under this interpretation, the exclusion in 111(d) does NOT preclude EPA from regulating CO₂ from power plants,

even though power plants are regulated for other pollutants under Section 112, because CO₂ is not a pollutant regulated under Section 112.

- 6) Critics have suggested that it will be nearly impossible for States to meet the new Ozone standard because of the transport of air pollution from countries like Mexico and China.
 - o Do you think the presence of international emissions is a valid reason not to strive for reductions in air pollutants and improvements to our air quality?
 - o Does EPA take international emissions into account when setting standards for air quality? If so, how does inclusion of international emissions impact a State's ability to attain air quality standards?

A: First, based on our review of air quality data and projections, EPA does not expect that uncontrollable background concentrations of ozone, from sources like natural (e.g., wildfires) or foreign emissions, will preclude attainment of the ozone standard with a level of 70 ppb. In addition, the Clean Air Act is clear that states are not responsible for reducing emissions over which they have no authority. This includes interstate transport, international emissions, and background emissions such as from wildfires or dust storms. Several provisions of the CAA address those situations and provide for special treatment for areas affected in these ways.

For example, Section 179B of Clean Air Act allows the EPA to approve an attainment demonstration for a nonattainment area if: (1) The attainment demonstration meets all other applicable requirements of the CAA; and (2) the submitting state can satisfactorily demonstrate that "but for emissions emanating from outside of the United States," the area would attain and maintain the ozone standard. The EPA has historically evaluated these "but for" demonstrations on a case-by-case basis, based on the individual circumstances, the classification of the area and the data provided by the submitting state. These data have included ambient air quality monitoring data, modeling scenarios, emissions inventory data and meteorological or satellite data. Due to the fact specific nature of section 179B demonstrations, the process and information required will be dependent on the circumstances of the state or locality in question.

Section 179B ensures that states will take actions to mitigate the public health impacts of exposure to ambient levels of pollution that violate the NAAQS by imposing reasonable control measures on the sources that are within the jurisdiction of the state, to extent required under the Act, while also authorizing the EPA to approve such attainment plans and demonstrations even though they may not fully address the public health impacts of international transport.

Rep. Bonamici Questions for the Record

June 22nd Hearing with EPA Administrator Gina McCarthy

Question 1: Administrator McCarthy, I was encouraged to learn about the recently announced joint climate pledge between the United States, Mexico, and Canada that aims to produce 50 percent of the continent's electricity from clean energy sources by 2025.

Addressing climate change is important to my constituents in northwest Oregon and to the economy of our state. I would like to enter into the record a letter from prominent scientific organizations about the urgent need to take action on this issue. I frequently speak with people whose livelihood is affected by climate change, including people on the coast who rely on a healthy ocean, growers of our famous pinot grapes in Yamhill County, and entrepreneurs who are developing new clean energy technologies. Recently I visited a small business in Beaverton, Oregon. These dedicated business owners used to sell a lot of snowboards; now they are transitioning to skate boards because there's just not enough snow. These Oregonians join the millions of others across the country who are looking for leadership on this critical issue.

How has the willingness of the United States to act decisively on climate change affected the response from the rest of the international community?

A: One of the goals of the President's Climate Action Plan is to demonstrate global leadership on climate change, and as a result of this leadership the United States is not alone in taking action on climate change. Our action is the catalyst for countries around the world to see that the United States is serious and thus to take their own serious steps. I visited China earlier this year and heard about the progress they are making. The Chinese government knows that air pollution is a major domestic public health and economic challenge; knows that climate change is a global threat that requires global action; and knows that addressing the two can go hand-in-hand. The Chinese have set ambitious goals for new clean energy generation, and are putting into place market mechanisms to cap emissions from key sectors. Similarly, the Indian Prime Minister just visited the United States and a key outcome of his meetings with President Obama were more pledges of cooperative work on climate and clean energy. The robust transparency measures included in the Paris agreement will allow us to know how other countries are progressing in achieving the goals that they have set.

Question 2: Oregon has been proactive in its efforts to reduce greenhouse gas emissions. When I was in the state legislature, I helped establish some of the state's carbon emissions reduction goals. And new Oregon legislation will require 50 percent renewables by 2040, and a total phase-out of coal-fired electricity by 2035.

Some contend that environmental regulations might harm the economy. This hasn't been the case in Oregon, where we have a vibrant renewable energy industry. Vestas, a global wind energy

company with its North American Headquarters in my congressional district, just received an order of 1000 wind turbines for a proposed wind farm in Iowa, and a few months ago, an order for 300 turbines for a wind farm in Colorado.

Administrator McCarthy, will you please explain the potential for good jobs in clean energy, including the potential from developing and demonstrating the next generation of clean energy and environmental technologies?

A: Increased demand for clean and efficient energy provides the U.S. with opportunities to innovate, to create that next generation of American-made clean energy and environmental technologies that will be sold in the U.S. and around the world and to support American jobs developing, demonstrating and deploying those technologies. This increased demand, both domestically and internationally, for clean energy technologies increases economic opportunities for the U.S., particularly related to jobs that support clean energy and energy efficiency. These jobs include the workers who manufacture and install solar panels, wind turbines, insulation, high efficiency appliances and equipment, and electric vehicles. It includes the inventors and engineers that design and develop new, cleaner energy technologies. It also includes the workers who retrofit homes and businesses and those that enhance heating and cooling systems to be more energy efficient.

Use of clean and efficient energy is expected to increase in the U.S. According to the EIA in their Annual Energy Outlook (AEO) 2016, total renewable electricity generation is expected to increase from 2015 to 2030 across all regions of the U.S.¹ Total wind and solar generation, without factoring in any impacts of the Clean Power Plan, is expected to double by 2030.² Electricity generated from renewables is expected to grow by 9% in 2016 alone.³ The U.S. added 8.1 gigawatts of wind power capacity in 2015 – and those installations represent a 12.9% increase from 2014 levels.⁴

Energy efficiency programs are also expected to increase in the next decade or more. Lawrence Berkeley National Laboratories (LBNL) projected that by 2025, spending on utility-run energy efficiency programs may double to \$9.5 billion but could increase substantially beyond that depending upon how policies are implemented.⁵

According to the U.S. Energy and Employment Report (USEER), there are 600,000 workers employed in low carbon emission technologies, including 200,000 that spend the majority of their time on solar and another 77,000 that are employed at wind firms.⁶ According to LBNL, state RPS-related investments in renewables in 2013 and 2014,

¹ AEO2016, EIA, P. IF-7. [https://www.eia.gov/forecasts/aeo/pdf/0383\(2016\).pdf](https://www.eia.gov/forecasts/aeo/pdf/0383(2016).pdf)

² AEO2016, EIA, P. IF-10. [https://www.eia.gov/forecasts/aeo/pdf/0383\(2016\).pdf](https://www.eia.gov/forecasts/aeo/pdf/0383(2016).pdf)

³ <http://www.eia.gov/todayinenergy/detail.php?id=24792>

⁴ <http://www.eia.gov/todayinenergy/detail.php?id=25172>,

<http://www.eia.gov/todayinenergy/detail.php?id=25912>

⁵ The Future of Utility Customer - Funded Energy Efficiency Programs in the United States: Projected Spending and Savings to 2025, LBNL, 2013. https://emp.lbl.gov/sites/all/files/lbnl-5803e_0.pdf

⁶ USEER, US DOE, 2016

<http://energy.gov/sites/prod/files/2016/03/f30/U.S.%20Energy%20and%20Employment%20Report.pdf>

supported nearly 200,000 U.S.-based gross jobs in 2013 and drove over \$20 billion in gross domestic product (GDP).⁷ Additional demand would likely bring additional jobs.

USEER finds that 1.9 million Americans are currently employed, in whole or in part, in the design, installation or manufacture of energy efficient products and services, with 1.2 million of those jobs in the construction industry. An analysis by the Pacific Northwest National Laboratory found that a 15 percent increase in energy efficiency - in residential and commercial buildings alone - could add 320,000 new jobs by 2030. Increased demand for renewables, like wind and solar, and for energy efficiency products and services can bring increased demand for jobs.⁸ Many of these are jobs that are performed locally and cannot be exported.

⁷ A Retrospective Analysis of the Benefits and Impacts of U.S. Renewable Portfolio Standards, LBNL, 2016.
<https://emp.lbl.gov/sites/all/files/lbnl-1003961.pdf>

⁸ Assessing National Employment Impacts of Investment in Residential and Commercial Sector Energy Efficiency: Review and Example Analysis, 2104. PNNL-23402.
http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23402.pdf

Appendix II

ADDITIONAL MATERIAL FOR THE RECORD

LETTER SUBMITTED BY REPRESENTATIVE MO BROOKS

LAMAR S. SMITH, Texas
CHAIRMANEDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States

House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371
www.science.house.gov

August 31, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy:

On December 17, 2014, the U.S. Environmental Protection Agency (EPA) issued its proposed rule for ozone National Ambient Air Quality Standards (NAAQS). The proposed rule would set more stringent standards, lowering the primary standard from the current 75 parts per billion (ppb) to a range of 65 to 70 ppb. If enacted, this rule is likely to be the costliest rule EPA has ever proposed.¹

We are concerned that EPA may not have properly analyzed the underlying scientific issues that have been raised since the official comment period for the rule has closed. These issues include serious concerns raised about background ozone and the reliance on a single study as the basis for setting the proposed standard. The American people deserve a thorough and complete analysis of this proposed rule.

The Committee is concerned about the impact of background ozone on the attainability of EPA's proposed ozone standard across the entire United States. Background ozone comes from both natural sources and foreign emission sources.² As EPA admits its proposed rule:

[T]here is no question that, as the levels of alternative prospective standards are lowered, background will represent increasingly larger fractions of total O₃ levels and may subsequently complicate efforts to attain these standards.³

¹ <http://www.nam.org/Newsroom/Press-Releases/2015/02/NAM--Proposed-Ozone-Rule-Still-The-Most-Costly/>

² <http://www.asi-associates.com/natural.htm>

³ Federal Register, Vol. 79, No. 242 75383

The Honorable Gina McCarthy
August 31, 2015
Page 2

In testimony before the Committee and in response to follow-up questions from Committee Members, Dr. Allen Lefohn, an expert on ozone and a past Executive Editor of the journal *Atmospheric Environment*, indicated that the large amount of emission reductions required to meet EPA's proposed lower ozone standard highlights the importance of background ozone levels throughout the U.S.⁴ Dr. Lefohn also noted that ozone formed from background sources across the U.S. predominates during the spring months when anthropogenic sources have a much smaller impact.⁵ We are concerned about modeling results that indicate that exceedances of the proposed ozone standard will occur during the springtime, even when emissions are dramatically reduced across the U.S.⁶ EPA's recent proposal⁷ to extend the ozone-monitoring period to include the month of March will identify violations of the proposed standard that are associated with uncontrollable factors, which is especially concerning.⁸ Furthermore, the locations affected by the aforementioned monitoring season change can appear anywhere across the U.S., creating compliance issues for the entire country, not exclusively limited to the western U.S.⁹

In addition to concerns related to background ozone, the Committee notes that EPA's proposed rule places the greatest weight on controlled human exposure studies, citing significant uncertainties with epidemiologic studies:

[T]he effects reported in controlled human exposure studies are due solely to O₃ exposures, and interpretation of study results is not complicated by the presence of co-occurring pollutants or pollutant mixtures (as is the case in epidemiologic studies). Therefore, she places the most weight on information from these controlled human exposure studies.¹⁰

Of these human exposure studies, however, it appears that only *one* controlled human exposure study, published in 2009 by Schelegle et al., shows effects that may be considered adverse at ozone concentrations below the current standard.¹¹ The Schelegle study found small, reversible impacts at ozone concentrations roughly equivalent to 72 ppb.¹² EPA's proposed rule notes that controlled human exposure studies at lower ozone concentrations (60 and 63 ppb) "did not show statistically significant increases in respiratory symptoms compared to filtered air controls."¹³

⁴ <http://docs.house.gov/meetings/SY/SY00/20150317/103159/HHRG-114-SY00-Wstate-LefohnA-20150317.pdf>

⁵ H. Comm. on Science, Space and Technology, *Reality Check: The Impact and Achievability of EPA's Proposed Ozone Standards*, 114th Congress (Mar. 17, 2015), Questions for the Record, Dr. Allen Lefohn

⁶ *Ibid*

⁷ <http://www.epa.gov/ttn/naaqs/standards/ozone/data/Rice-2014-O3MonitoringSeasonAnal-EPA-HQ-OAR-2008-0699-0383.pdf>

⁸ H. Comm. on Science, Space and Technology, *Reality Check: The Impact and Achievability of EPA's Proposed Ozone Standards*, 114th Congress (Mar. 17, 2015), Questions for the Record, Dr. Allen Lefohn

⁹ *Ibid*

¹⁰ 75288, Federal Register, Vol. 79, No. 242

¹¹ Schelegle et al., 6.6-Hour Inhalation of Ozone Concentrations from 60 to 87 Parts per Billion in Healthy Humans, *Am J Respir Crit Care Med*. 2009 Aug 1;180(3):265-72.

¹² *Ibid*

¹³ 75304, Federal Register, Vol. 79, No. 242

The Honorable Gina McCarthy
 August 31, 2015
 Page 3

Based on this evidence, the proposal states that the Administrator concludes that the controlled human exposure studies “strongly support setting the level of a revised [ozone] standard no higher than 70 ppb.”¹⁴

However, the 2009 Schelegle et al. study contains serious deficiencies that were not discussed in the proposed rule. For example, this study does not replicate key results from previous peer-reviewed studies, and another peer-reviewed study¹⁵ has raised questions about the lack of consistency between Schelegle’s results and the two studies by Adams et al (2003, 2006).¹⁶

We noted that there was a relative lack of coherence of the 70 and 80 ppb experiments reported by Schelegle et al. (2009) compared with the other 4 studies, as well as an inconsistency of response by subjects.¹⁷

The Committee is concerned with such a heavy reliance on one potentially flawed study as basis for EPA’s proposed rule, and believes that these concerns warrant further deliberation before EPA finalizes the rule.

The aforementioned concerns raise many questions about the necessity and validity of enacting a new, more stringent ozone NAAQS rule. In order to assist the Committee with its oversight, please provide the following documents, in electronic format:

1. All documents and communications referring or relating to EPA’s analysis of the influence of background ozone in the springtime on the attainment of a lower ozone standard throughout the entire United States.
2. All documents and communications referring or relating to EPA’s analysis of the relationship between background ozone and the anthropogenic emissions reductions that will be required during both the summer and the spring to attain the proposed lower standards.
3. All documents and communications referring or relating to any plan or strategy to address the influence of background ozone on the attainment of a lower ozone standard.
4. All documents and communications referring or relating to EPA’s analysis of estimates for mortality and morbidity health risk that were influenced by background ozone and also by anthropogenic sources, as ozone emissions are reduced.

¹⁴ 75304, Federal Register, Vol. 79, No. 242

¹⁵ Lefohn AS, Hazucha MJ, Shadwick D, Adams WC., “An alternative form and level of the human health ozone standard”, *Inhal Toxicol*. 2010 Oct;22(12):999-1011

¹⁶ Adams W.C. Comparison of chamber 6.6-h exposures to 0.04-0.08 ppm ozone via square-wave and triangular profiles on pulmonary responses. *Inhal Toxicol* 2006;18:127-136

Adams W.C. Comparison of chamber and face-mask 6.6-hour exposure to 0.08 ppm ozone via square-wave and triangular profiles on pulmonary responses. *Inhal Toxicol* 2003;15:265-281

¹⁷ Lefohn AS, Hazucha MJ, Shadwick D, Adams WC., “An alternative form and level of the human health ozone standard”, *Inhal Toxicol*. 2010 Oct;22(12):999-1011

The Honorable Gina McCarthy
August 31, 2015
Page 4

5. All documents and communications referring or relating to EPA's analysis of the influence of background ozone and anthropogenic sources on lung function risk estimates.
6. All documents and communications referring or related to the 2009 Schelegle et al. study.
7. All documents and communications between EPA and the Office of Management and Budget (OMB) regarding background ozone issues and the 2009 Schelegle et al study.
8. All documents and communications between EPA and outside groups referring or related to the 2009 Schelegle et al study.

Because the rule must be finalized by October 1, 2015, please provide responses as soon as possible, but no later than 5:00 p.m. on Monday, September 14, 2015. When producing documents to the Committee, please deliver production sets to the following locations:

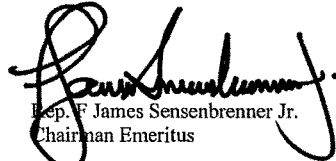
- Majority Staff of the House Science Committee in Room 2321 of the Rayburn House Office Building
- Minority Staff of the House Science Committee in Room 394 of the Ford House Office Building

If you have any questions about this request, please contact Richard Yamada or Joe Brazauskas of the Science, Space, and Technology Committee staff at 202-225-6371. Thank you for your attention to this matter.

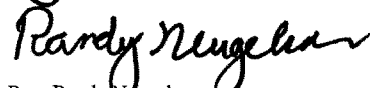
Sincerely,

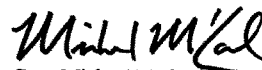

Rep. Lamar Smith
Chairman


Rep. Frank Lucas
Vice Chairman

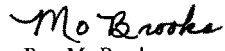

Rep. F. James Sensenbrenner Jr.
Chairman Emeritus


Rep. Dana Rohrabacher
Member of Congress


Rep. Randy Neugebauer
Member of Congress

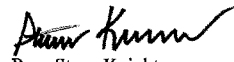

Rep. Michael McCaul
Member of Congress

The Honorable Gina McCarthy
August 31, 2015
Page 5


Rep. Mo Brooks
Member of Congress

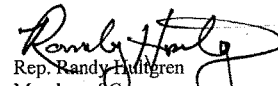

Rep. Jim Bridenstine
Chairman
Subcommittee on Environment

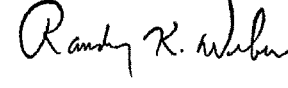

Rep. Bill Johnson
Member of Congress


Rep. Steve Knight
Member of Congress

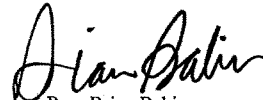

Rep. Bruce Westerman
Member of Congress


Rep. Larry Loudermilk
Chairman
Subcommittee on Oversight


Rep. Randy Hultgren
Member of Congress


Rep. Randy Weber
Chairman
Subcommittee on Energy


Rep. John Moolenaar
Member of Congress


Rep. Brian Babin
Chairman
Subcommittee on Space


Rep. Gary Palmer
Member of Congress


Rep. Ralph Lee Abraham
Member of Congress

cc: The Honorable Eddie Bernice Johnson, Ranking Minority Member, House Committee on
Science, Space and Technology

DOCUMENTS SUBMITTED BY REPRESENTATIVE GARY PALMER

[REDACTED] National
[REDACTED] Energy
[REDACTED] Assistance
[REDACTED] Survey

November 2011



Jo-Ann Choate

Chairman, National Energy Assistance Directors' Association

Mark Wolfe

Executive Director, National Energy Assistance Directors' Association

Contact:

202.237.5199

www.neada.org

National Energy Assistance Survey

The **Low Income Home Energy Assistance Program (LIHEAP)** is the most comprehensive federal program that helps low-income families meet their immediate home energy needs. Approximately 8.9 million low-income families received assistance in FY 2011; approximately 10 million households are expected to apply for assistance in FY 2012.

While the average LIHEAP benefit is modest, covering about half the cost of home heating, or **\$417 per year**, nearly **two-thirds** of households reported that they would have kept their homes at unsafe or unhealthy temperatures if it had not been for LIHEAP.

The following is a summary of the key findings from the 2011 National Energy Assistance Survey of 1,768 families. A complete copy of the survey is available on the NEADA website: www.neada.org.

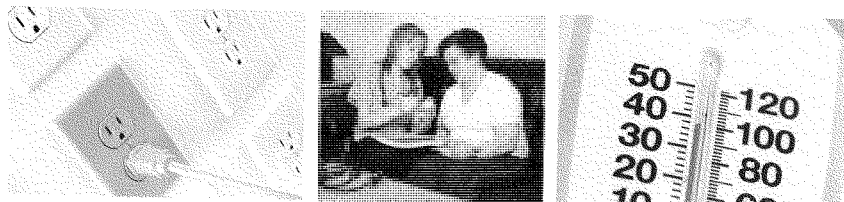
LIHEAP Households Are Among the Most Vulnerable in the Country

LIHEAP recipients have an acute need to maintain safe and healthy temperatures in their homes. Nearly **90 percent** of recipient households have at least one vulnerable member—defined as someone who is age 60 or older, age 18 or younger, or disabled—for whom a loss of heat in the winter or cooling in the summer could have serious health and safety implications.

Table I

Household Members Who Are Vulnerable to Temperature Extremes or Loss of Electricity	
Senior ≥ 60	40%
Disabled	42%
Child ≥ 18	41%
Young Child ≤ 5	21%
Single Parent	15%
Serious Medical Condition	72%
Seniors with Medical Conditions	85%
Use Medical Equipment that Requires Electricity	26%

Because of the difficulty they faced in paying their utility bills, these vulnerable households were forced to make choices that carry serious health risks. As many as **37 percent** went without medical or dental care, and **34 percent** did not fill a prescription or took less than their full dose of prescribed medication. In addition, **19 percent** became sick because the home was too cold.



Frozen House

This past heating season highlighted how dangerous it can be for people living with disabilities to go without heat. In Maine, a disabled woman was running out of heating oil. To conserve supplies she was forced to turn her heat down extremely low. Her poorly insulated home leaked warm air and moisture, eventually resulting in her door freezing over completely. Her disability prevented her from removing the ice, and she became trapped inside her home. Through LIHEAP assistance and Maine's Weatherization program, contractors were sent to her home to melt the ice from around her door, seal the leaks that contributed to her high energy bills, and provide her with fuel to heat her home.

**For more inspiring stories, visit
www.neada.org/faces**

The Burden of High Utility Bills

LIHEAP recipient households are among the poorest in the nation. **Sixty-one percent** reported incomes at or below the poverty line. For them, the rising cost of home heating is an extraordinary burden—**52 percent** said that energy bills were more difficult to pay than in the previous year.

As a result, LIHEAP households faced difficult—and sometimes dangerous—choices in the face of high energy costs.

Table II

Household Responses to the Problem of Unaffordable Energy Bills	
Closed Off Part of Home	39%
Kept Home at Temperature They Felt was Unsafe or Unhealthy	23%
Left Home for Part of the Day	21%
Used Kitchen Stove or Oven to Provide Heat	33%
Went Without Food for at Least One Day	24%



Even with LIHEAP benefits, many households reported enormous challenges. However they also reported that LIHEAP was extremely important, in many cases allowing them to keep their homes at a safe temperature. And the LIHEAP benefit, while modest, significantly reduced the percentage of their household income that they spend on home energy, commonly referred to as “residential home energy burden.”

Table III

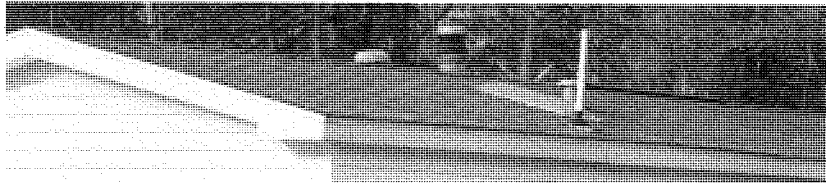
Total Residential Home Energy Burden		
% of Energy Burden	Pre-LIHEAP	Post-LIHEAP
0 - 5%	9%	26%
6 - 10%	32%	32%
11 - 15%	23%	20%
16 - 20%	13%	9%
21 - 25%	9%	5%
>25%	13%	8%

Inability to Pay Energy Bills

Despite the assistance they received, many LIHEAP recipients were unable to pay their energy bills. Almost **half** of the respondents reported that they had skipped paying or paid less than their entire home energy bill in the past year. More than **one-third** said they received a notice or threat to disconnect or discontinue their electricity or home heating fuel.

Housing and Financial Problems

Many LIHEAP recipients had difficulty paying for housing, in part because of their energy burden. Almost **one-third** did not make their full mortgage or rent payment. **Six percent** were evicted from their homes or apartments, and **four percent** faced foreclosure on their mortgages.



The Best Winter in Many Years

In Minnesota, an elderly couple was living on social security benefits totaling \$998 a month. They prided themselves on being self-sufficient; for many years they set the thermostat at 57 degrees and dressed in many layers. However, after they were referred to the Minnesota Energy Assistance Program, they were able to heat their home to a safer temperature and afford better food. They thanked the agency for giving them “one of the best winters in many years.”

**For more inspiring stories, visit
www.neada.org/faces**

The Need for LIHEAP

93% of households reported that LIHEAP was essential in helping them meet their home heating needs

92% of households have an elderly member

77% of households have incomes less than \$20,000

61% of households reported that LIHEAP prevented shut off of natural gas or electric service

The average LIHEAP benefit is modest—about **50%** of home heating costs—and temporary.

MI

ISSUES
2016

Who Pays the Bill for the Obama Climate Agenda?

The Claim:

"[I]f the message is somehow we're going to ignore jobs and growth simply to address climate change, I don't think anybody is going to go for that. I won't go for that... [W]e're still trying to debate whether we can just make sure that middle-class families don't get a tax hike."

BARACK OBAMA

The Reality:

President Obama's climate agenda represents an enormous tax increase on low- and middle-income Americans—nearly tripling the federal tax burden on the poorest households.

DEER CLASS

JAMES H. HANCOCK



Reality Check

President Obama's policies for tackling climate change would impose heavy costs borne disproportionately by lower-income U.S. households. His Clean Power Plan (CPP) and proposal for a \$10.25-per-barrel oil tax are the equivalent of a \$25–\$30-per-ton carbon tax, which would cost America's poorest families tens of billions of dollars per year. For households in the lowest-income quintile, such policies are the equivalent of a more than 160 percent federal tax increase.

Key Findings

- President Obama's climate platform—built on the CPP and his budget proposal for a \$10.25-per-barrel tax on oil—is the equivalent of a \$30-per-ton carbon tax.
 - The Environmental Protection Agency's (EPA) analysis of the CPP, as well as third-party projections for the level of carbon tax necessary to achieve the CPP's goals, shows that the CPP is comparable with a \$30-per-ton tax on power-plant emissions.
 - The oil tax would add approximately 25 cents per gallon to the cost of gasoline, equal to a \$25-per-ton tax on oil-related emissions.
 - Together, these policies—which would cover four-fifths of U.S. emissions—are similar in scope to an economy-wide carbon tax.
- The cost of such policies would fall disproportionately on the lowest-income U.S. households, which spend more than 35 percent of their annual income on energy.
 - By comparison, households in the top 10 percent of the income distribution spend less than 3 percent of their income on energy.
 - Similarly, rural households spend 40 percent more on gas and electricity—and earn 26 percent less—than households in the largest cities.
- The Obama policies will cost households in the lowest quintile \$19 billion per year, equal to a 166 percent increase in their federal tax bills.
 - Households in the second-lowest quintile would pay an extra \$25 billion, equal to a 33 percent tax increase.

On the Record

Supporters of President Obama's climate agenda—which would impose hugely disproportionate costs on the poorest Americans—are backing one of the most regressive tax plans ever contemplated in U.S. history. Yet the policy pays only lip service to 'action' on climate change and will not affect the trajectory of global greenhouse-gas emissions or temperatures.

Oren Cass, Senior Fellow, Manhattan Institute

Energy Taxes Hurt the Poor

American households vary relatively little in their energy consumption. Average before-tax income for households in the bottom 10 percent of the distribution is one-eighth that of the median household and one-fortieth that of a household in the top 10 percent. Yet electricity bills do not mirror these gaps: \$1,000 per year at the bottom; \$1,500 per year in the middle; and \$2,100 per year at the top. The same goes for gasoline, where annual bills run to \$1,100, \$2,400, and \$3,900, respectively. Thus, while a household in the bottom 10 percent spends more than 35 percent of its income on energy, one in the top 10 percent spends only 3 percent.²

Similarly, lower-income but more energy-intensive rural communities are far more sensitive to energy prices than their urban counterparts. The average household in a rural community earns 26 percent less than the average household in one of America's largest cities, yet spends 40 percent more on electricity and gasoline.³ As a result, policies that drive up energy prices are extremely regressive, landing disproportionately on lower-income and rural households. For instance, increasing the cost of gas and electricity by 20 percent from 2014 levels would have an effect comparable with a new income tax of 7.4 percent on the poorest Americans; for the richest Americans, such a price hike would be comparable with a new income tax of only 0.5 percent. That same 20 percent increase would hit the average rural family nearly twice as hard as the average family in a major city.

The Obama Carbon Tax

The regressive impact of rising energy prices helps explain why policies like a carbon tax—which aim to produce such increases—remain deeply unattractive to most policymakers. “We would never propose a carbon tax and have no intention of proposing one,” declared Jay Carney, then White House press secretary, just days after President Obama secured reelection.⁴ But the president’s platform, embraced by environmentalists and largely mirrored in the campaign agenda of Hillary Clinton,⁵ represents a thinly disguised carbon tax that will have effects at least as costly.

The first plank is the CPP, designed to force the utility sector toward higher-cost sources of electricity that will drive prices up and carbon-dioxide emissions down.⁶ The effect is similar to a carbon tax, and, as David Bailey and David Bookbinder of the Niskanen Center note,⁷ the EPA conducted an analysis that equated the CPP to a carbon tax of approximately \$30 per ton.

The CPP’s cost can also be compared with a carbon tax on the basis of its expected outcome. The EPA estimates that the CPP will reduce 2030 emissions from the utility sector by 32 percent below their 2005 level.⁸ In *Implementing a U.S. Carbon Tax*, a report from the International Monetary Fund, the Brookings Institution, and Resources for the Future, the EPA’s chief climate economist and his co-authors estimate that a carbon tax would need to start at \$30 per ton and rise each year to achieve comparable emissions reductions.⁹

The second plank of the Obama platform, proposed in his 2017 budget, is a \$10.25-per-barrel tax on oil. Most of the tax’s revenue would go toward infrastructure, and 15 percent would be rebated to households.¹⁰ A \$10.25-per-barrel tax translates into approximately 25 cents per gallon at the pump,¹¹ and each dollar of carbon tax translates to approximately one cent per gallon;¹² the tax is, therefore, no different from a \$25-per-ton tax on carbon-dioxide emissions from oil consumption.

With electricity generation and oil consumption each accounting for approximately 40 percent of U.S. emissions,¹³ President Obama’s policies together represent a carbon tax of \$25–\$30 per ton across the vast majority of energy consumption that might fall within any carbon tax’s scope. In-depth studies of carbon taxes in this range already exist and provide a clear view of the huge costs that such taxes impose.

Reality Check: **Who Pays the Bill for the Obama Climate Agenda?**

Scoring the Obama Tax

At the household level, President Obama would impose an enormous new tax on lower- and middle-income households. In the chapter of *Implementing a U.S. Carbon Tax* focused on distributional impacts, Adele Morris of the Brookings Institution and Aparna Mathur of the American Enterprise Institute estimate that—after taking into account direct energy price increases and indirect price increases for other goods and services—a \$15-per-ton carbon tax in 2010 would have cost the bottom 20 percent of households \$11.9 billion that year and would have cost the second-lowest quintile \$15.7 billion.¹⁴ For Obama's policies, these estimates should be doubled, to account for the approximately \$30-per-ton cost, and then reduced by 20 percent, to account for their coverage of only oil- and electricity-related emissions.

Annual effective taxes on the bottom two quintiles of approximately \$19 billion and \$25 billion are massive, when compared with the \$11 billion and \$77 billion that those quintiles paid in federal taxes in 2011.¹⁵ For the lowest-income U.S. households, such policies would represent a more than 160 percent tax increase; and for the second-lowest quintile, an increase of more than 30 percent.

Income Quintile	Federal Taxes, 2011 (2011 USD, Billions) ¹⁶	Annual Burden of \$15-per-Ton Carbon Tax, 2010 (2011 USD, Billions) ¹⁷	Estimated Impact of Obama Climate Policies (2011 USD, Billions)	Increase in Total Federal Tax Burden (%)
Lowest	11.4	11.9	19.0	166
Second	76.6	15.7	25.1	33
Middle	180.0	19.9	31.9	18
Fourth	354.2	24.0	38.5	11
Highest	1,379.9	34.0	54.5	4

Many carbon-tax proposals attempt to mitigate this effect by "recycling" the revenue back to households; but the Obama policies cannot do this because there is no money available. The CPP generates no revenue, and the oil-tax revenue is earmarked primarily for infrastructure investment. Estimates based on carbon-tax analyses also underestimate the full impact of Obama's climate agenda: a straight-forward, broad-based carbon tax would likely reduce emissions more efficiently than would Obama's web of taxes and regulations. The president has acknowledged that a carbon tax would be "most elegant."¹⁸ Yet his determination to act in direct conflict with the will of Congress has forced him, instead, to pursue costlier policies that he believes the EPA can implement unilaterally.

Endnotes

- ¹ See <https://www.whitehouse.gov/the-press-office/2012/11/14/remarks-president-news-conference>.
- ² See <http://www.bls.gov/cex/2014/combined/decile.pdf>.
- ³ See <http://www.bls.gov/cex/2014/combined/population.pdf>.
- ⁴ See <https://www.whitehouse.gov/the-press-office/2012/11/15/press-gaggle-press-secretary-jay-carney-en-route-new-york-ny-11152012>.
- ⁵ Clinton has expressed strong support for the CPP and has promised to "go further"; see <https://www.hillaryclinton.com/briefing/statements/2015/08/02/obama-clean-power-plan>. Sanders has proposed an aggressive carbon tax but would rebate much of the revenue to low-income households, which greatly alters the distributional effects; see <http://www.sanders.senate.gov/download/climate-protection-and-justice-act>. Neither has commented on President Obama's oil-tax proposal; see <http://www.politico.com/story/2016/02/obama-oil-tax-gop-reaction-218774>.
- ⁶ See <http://www.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants>.
- ⁷ See <https://niskanencenter.org/blog/how-high-would-a-carbon-tax-need-to-be-to-hit-cpp-emission-reductions>.
- ⁸ See <http://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan>.
- ⁹ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>.
- ¹⁰ See <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2017/assets/budget.pdf>.
- ¹¹ See <http://www.eia.gov/hoday/energy/detail.cfm?id=18651>.
- ¹² See https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44223_Carbon_0.pdf.
- ¹³ See <http://www.eia.gov/beta/MER/index.cfm?tbl=T12.01&?f=A&start=1973&end=2014&charted=0-1-13>; table 12.1 for oil and table 12.6 for electricity.
- ¹⁴ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>; figures inflated from 2010 dollars to 2011 dollars using a CPI increase of 3.16 percent.
- ¹⁵ See <https://www.cbo.gov/publication/49440>; supplemental data.
- ¹⁶ *Ibid.*
- ¹⁷ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>; figures inflated from 2010 dollars to 2011 dollars using a CPI increase of 3.16 percent.
- ¹⁸ See <https://www.whitehouse.gov/the-press-office/2015/12/01/press-conference-president-obama>.

LETTER SUBMITTED BY REPRESENTATIVE BRUCE WESTERMAN



United States Department of Agriculture

Office of the Secretary
Washington, D.C. 20250

MAR 28 2016

Her Excellency
Amber Rudd, MP
Secretary of State for Energy and Climate Change
3 Whitehall Place
London SW1A 2AW

Dear Madam Secretary:

I am writing about the sustainability of U.S. forests and the U.S. wood pellet industry. Some media outlets and non-governmental organizations have questioned the ability of southern U.S. forest areas to supply sustainable biomass to the United Kingdom (UK) and the European Union (EU). On the contrary, the U.S. wood pellet industry increases our forested area, reduces greenhouse gas emissions, and improves U.S. forest management practices.

The Forest Service, an agency of the U.S. Department of Agriculture (USDA), supports sustainable stewardship of more than 600 million acres of forestland across the United States, including more than 400 million acres (161.87 million hectares) of private land. Our latest inventory showed that the amount of forested land in the southern United States increased by 55 million acres (22.26 million hectares) from 2007 to 2012. Beyond its domestic mandate, the U.S. Forest Service is one of the most respected forestry research organizations in the world and supports sustainable stewardship of forests via technical cooperation in more than 80 countries.

Biomass generation provides significant greenhouse gas benefits to the UK, due to reduced fossil fuel combustion. In addition, demand for wood pellets also delivers compelling carbon and societal benefits to the United States. Independent analysis undertaken on this issue has consistently shown that demand for wood pellets promotes U.S. forest growth and reduces risks to U.S. forests. A study by Duke University and North Carolina State University found that increasing demand for wood pellets from the UK and EU has increased U.S. forested areas and investments in U.S. forestry. This is a direct result of more effective and intense management by forest owners as they strive to increase the value of their forests and optimize biomass production and use. A December 2014 study, conducted on behalf of USDA by Abt, Abt, Galik and Skog, drew similar conclusions.

If there is a risk of greater carbon emissions from forests in the United States, it can be attributed more to the loss of forested areas from development, increasing forest health disturbances (i.e. forest fire), and the aging of our forest sink, and less so to U.S. wood biomass generation. Forests with little or no economic value are at greater risk of conversion to non-forest uses, whereas viable markets for wood and wood fiber raise the value of forest lands and encourage

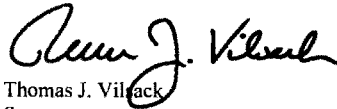
Her Excellency Amber Rudd, MP
Page 2

investment, regrowth, and expansion. New economic opportunities for low-value wood for bioenergy from trading partners like the EU has increased demand for this material and improved the likelihood that forested lands remain intact. Extraction of this often unused material also reduces the risk of catastrophic wildfire and provides incentives for the development of better forest management techniques, mitigating the risk of pest infestation and disease. In addition, wood used for bioenergy products complements uses for higher value wood materials, such as timber for structural building material, furniture, high-end plywood, and veneer.

U.S. forestry is a sustainable and vibrant industry. U.S. forests provide many ecosystem services: wildlife habitat and biodiversity, filtering the air and freshwater that sustains communities, and providing opportunities for recreation. The U.S. forest ecosystem is under pressure from global climate change and increased urbanization, not from demand for wood products. Furthermore, U.S. Federal and State laws and regulations ensure the sustainability of the wood pellet sector.

I look forward to continuing to work with you to address concerns about climate change and fostering greater trade, cooperation, and understanding between our countries.

Sincerely,

A handwritten signature in black ink, reading "Tom J. Vilsack". The signature is fluid and cursive, with the first name "Tom" and last name "Vilsack" clearly legible.

Thomas J. Vilsack
Secretary

LETTER SUBMITTED BY REPRESENTATIVE LEE ABRAHAM

United States Senate

WASHINGTON, DC 20510

June 17, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator McCarthy,

We are concerned that the Environmental Protection Agency (EPA) is overlooking important consequences that will result if its proposal to significantly reduce National Ambient Air Quality Standards (NAAQS) for ground level ozone is finalized. As healthcare professionals we rely upon the most accurate health data. From this vantage, we believe that the proposal's harm outweighs its claimed benefits and are concerned that it could ultimately undermine our constituents' health. In light of the significant ongoing improvements to air quality, progress that will continue even without new regulations, we encourage EPA to maintain the existing NAAQS for ground level ozone.

We support better air quality and are proud of the progress on air quality that this country has made since Congress passed the Clean Air Act. According to EPA's data, emissions of ozone precursors have been cut in half since 1980, resulting in a 33 percent drop in ozone concentrations in the U.S.¹ EPA projects that air quality will continue to significantly improve as states implement federal measures already on the books, including the current ozone NAAQS set in 2008. We note that EPA delayed implementing that standard from 2010-2012 while it considered replacing it with standards similar to those it is now proposing – a reconsideration that the White House ultimately abandoned in light of the high economic impact.

In the face of this continuing improvement to air quality, EPA has asserted more stringent ozone standards are necessary to protect public health. For example, EPA has claimed that reducing ozone-forming emissions will counteract asthma prevalence. However, according to the EPA and the Centers for Disease Control and Prevention, asthma prevalence has increased by 15 percent since 2001², while ozone concentrations have decreased by 18 percent³ during the same time period. This lack of correlation highlights important questions concerning the validity of EPA's conclusions.

Stakeholders have raised even more fundamental concerns regarding the science and estimated health benefits that are critical to the proposal's justification. For example, EPA

¹ EPA, "National Trends in Ozone Concentrations in 1990-2013," <http://www.epa.gov/airtrends/ozone.html>.

² Centers for Disease Control and Prevention, "Trends in Asthma Prevalence 2001-2010," http://www.cdc.gov/nchs/data/databriefs/db94_tables.pdf#1.

³ EPA, "National Trends in Ozone Concentrations in 1990-2013," <http://www.epa.gov/airtrends/ozone.html>.

concluded that four controlled exposure studies^{4,5,6,7} where healthy young adults were exposed to ozone or filtered air for 6 hours during and after which their lung function was measured support lowering the ozone standard. EPA indicated that these studies support this conclusion, because the authors found temporarily reduced lung function and more respiratory symptoms at exposures below or equal to 0.072 ppm.⁸ Each of these studies, however, evaluated fewer than 60 people. We believe the limited number of subjects studied impacts the quality of data needed to make informed health-based determinations. Importantly, few of these subjects experienced a loss of more than or equal to 10 percent of their baseline lung function in ozone exposures below 0.080 ppm. This is EPA's current benchmark for ozone response. Furthermore, one study reports that just three subjects had more than or equal to a 10 percent response at 0.060 ppm,⁹ and in another study, only six subjects had such a response at 0.072 ppm.¹⁰ These studies also involved individuals performing nearly constant exercise for long periods of time, leading to unrealistically high exposure scenarios not experienced by most people, including children and other sensitive subgroups, in the ordinary course of their lives. Thus, these studies' findings are again far too limited to be appropriately applied to the general U.S. population, or, for that matter, to groups of sensitive individuals in the population. As a whole, these controlled exposure studies do not support the necessity for a lower standard.

EPA also bases its decision to lower the current ozone standard in part on "a large number" of new epidemiology studies investigating health effects associated with both short- and long-term ozone exposures. EPA concluded that short-term ozone exposure causes respiratory effects and is "likely" associated with cardiovascular effects and all-cause mortality, while long-term exposure is "likely" associated with respiratory morbidity and mortality.¹¹ However, EPA concluded that a number of errors in the ozone epidemiology studies limit their use for risk assessment.¹² For these same reasons, we believe that these studies are not adequate and do not support a lower standard.

While the benefits from this proposal are questionable, the costs are real. EPA's proposed ozone standards are so stringent that they would not be met even in rural areas like the

⁴ Adams, WC. 2002. "Comparison of chamber and face-mask 6.6-hour exposures to ozone on pulmonary function and symptoms responses." *Inhal. Toxicol.* 14(7):745-764.

⁵ Adams, WC. 2006. "Comparison of chamber 6.6-h exposures to 0.04-0.08 ppm ozone via square-wave and triangular profiles on pulmonary responses." *Inhal. Toxicol.* 18(2):127-136.

⁶ Schelegle, ES; Morales, CA; Walby, WF; Marion, S; Allen, RP. 2009. "6.6-hour inhalation of ozone concentrations from 60 to 87 parts per billion in healthy humans." *Am. J. Respir. Crit. Care Med.* 180(3):265-272.

⁷ Kim, CS; Alexis, NE; Rappold, AG; Kehrl, H; Hazucha, MJ; Lay, JC; Schmitt, MT; Case, M; Devlin, RB; Peden, DB; Diaz-Sanchez, D. 2011. "Lung function and inflammatory responses in healthy young adults exposed to 0.06 ppm ozone for 6.6 hours." *Am. J. Respir. Crit. Care Med.* 183:1215-1221.

⁸ EPA. 2014. "National Ambient Air Quality Standards for Ozone (Proposed Rule)." 40 CFR Parts 50, 51, 52, 53, and 58. Accessed at <http://epa.gov/glo/actions.html#nov2014>.

⁹ Kim *et al.* (2011).

¹⁰ Schelegle *et al.* (2009).

¹¹ 79 Fed. Reg. 75234 (Dec. 17, 2014)

¹² *Id.* at 75276

Yellowstone and Grand Canyon National Parks. Across the country, more than 2,000 parishes and counties, well over half the nation, could fall into nonattainment. Pushing regions of our states into nonattainment will lead to the loss of industry and economic development as well as federal highway and transit funding. In fact, this proposal affects the entire U.S. economy. The day it is finalized air permits needed to build or expand facilities and create jobs even in areas already in attainment will become more stringent. Overall, analysis done by NERA Economic Consulting indicates that the proposed rule could reduce the U.S. GDP by \$140 billion per year and \$1.7 trillion from 2017 to 2040, resulting in significant job losses through 2040 and making the proposal the most expensive regulation in U.S. history.¹³

If the true intent here is to improve public health, then the Agency should factor how its ozone proposal affects every aspect of human health – including impacts from unemployment, poverty, and reduced access to health insurance. Public health should not be viewed in a vacuum, but rather considered holistically, mindful of the correlation between health and the economy. For example, a recent study by Dr. Harvey Brenner shows there is sufficient scientific and macro-economic evidence to support the link between income and health. According to Dr. Brenner, the phenomenon known as the “social gradient” of health shows that illness and mortality rates, regardless of diagnostic cause, age, gender, ethnicity or nationality, are inversely related to one’s socio-economic status (SES).¹⁴ Dr. Brenner not only stresses the effects of regulatory activity on employment loss, but also finds that an individual’s health declines from losses in household income. Specifically, Dr. Brenner’s work states:

“Income is one of the key predictors of health and life expectancy that is observed in epidemiological studies of the impact of socio-economic status on illness and mortality. Socio-economic status, in turn, is the single most important predictor for individuals, for mortality rates, for all causes, in the U.S. and other industrialized countries.”

Dr. Brenner’s findings echo those of a 1995 study by EPA, which found that:

“People’s wealth and health status, as measured by mortality, morbidity, and other metrics are positively correlated. Hence those who bear a regulation’s compliance cost may also suffer a decline in their health status, and if the costs are large enough, these increased risks might be greater than the direct risk-reduction benefits of the regulations.”¹⁵

According to 2013 U.S. Census Bureau data, of the 123 million households in the U.S., 8.9 million households have a pretax annual income of \$10,000 or less.¹⁶ In light of the link

¹³ NERA. “Economic Consulting: Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone.”

¹⁴ M. Harvey Brenner, University of North Texas Health Science Center and Johns Hopkins University, Bloomberg School of Public Affairs, “Impact of national unemployment and income on health in the United States and Europe: Recent evidence bearing on the potential impact of EPA regulations,” (March 17, 2015).

¹⁵ EPA, Economic Analysis and Innovations Division. “On the relevance of risk-risk analysis to policy evaluation,” (August 16, 1995).

¹⁶ U.S. Census Bureau. “Current Population Survey 2014 Annual Social and Economic Supplement,” http://www.census.gov/hhes/www/cpstables/032014/hhinc/hinc01_000.htm.

between income and public health, we are concerned that EPA's proposal will severely impact low income families, potentially forcing them to sacrifice basic human needs such as food, clothing or medical care. While cost of compliance is not a factor in determining NAAQS, we believe costs should be considered when, as here, they result in loss income associated with negative health effects.

Studies show that income is a key factor in public health, a link confirmed by our first-hand experience as medical professionals caring for patients, including the low income and uninsured. As well, stakeholders have noted serious questions regarding the health benefits EPA claims to support the proposal, and we are concerned that the uncertain benefits asserted by EPA in its ozone proposal will be overshadowed by its harm to the economy and human health. In light of the long-term continuing trend towards cleaner air, as well as ongoing work by states toward further improvements under existing regulations, we encourage EPA to protect American jobs, the economy, and public health by maintaining the existing ozone NAAQS.

Sincerely,

Bill Cassidy, M.D.
Bill Cassidy, M.D.
United States Senate

Michael Burgess, M.D.
Michael Burgess, M.D.
Member of Congress

John Barrasso
John Barrasso, M.D.
United States Senate

John Boozman
John Boozman, O.D.
United States Senate

Rand Paul
Rand Paul, M.D.
United States Senate

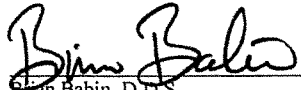
Earl L. Kaddy Carter
Earl Carter, Pharm.D.
Member of Congress

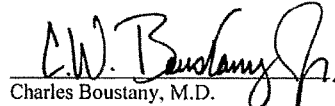
Phil Roe
Phil Roe, M.D.
Member of Congress

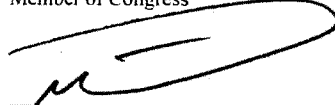
John Fleming
John Fleming, M.D.
Member of Congress

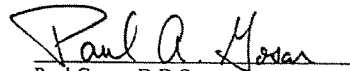
Diane Black
Diane Black, R.N.
Member of Congress

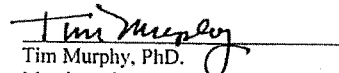
Ralph Abraham
Ralph Abraham, M.D.
Member of Congress

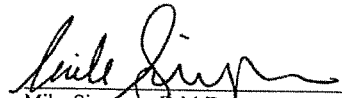

 Brian Babin, D.D.S.
 Member of Congress

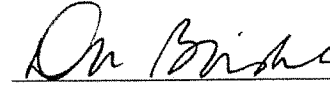

 Charles Boustany, M.D.
 Member of Congress

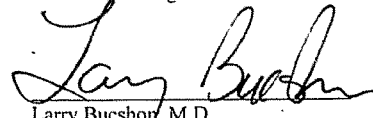

 Scott DesJarlais, M.D.
 Member of Congress

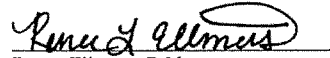

 Paul Gosar, D.D.S.
 Member of Congress

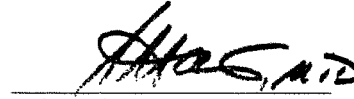

 Tim Murphy, PhD.
 Member of Congress

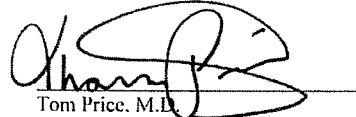

 Mike Simpson, D.M.D.
 Member of Congress


 Dan Benishek M.D.
 Member of Congress


 Larry Bucshon, M.D.
 Member of Congress


 Renee Ellmers, R.N.
 Member of Congress


 Andy Harris, M.D.
 Member of Congress


 Tom Price, M.D.
 Member of Congress


 Brad Wenstrup, D.P.M.
 Member of Congress

LETTER SUBMITTED BY REPRESENTATIVE RANDY HULTGREN

Congress of the United States
Washington, DC 20515

May 13, 2016

The Honorable Bruce Rauner
Governor
207 State House
Springfield, IL 62706

The Honorable John J. Cullerton
Senate President
327 Capitol Building
Springfield, IL 62706

The Honorable Michael J. Madigan
Speaker of the House of Representatives
300 Capitol Building
Springfield, IL 62706

The Honorable Christine Radogno
Senate Minority Leader
309G Capitol Building
Springfield, IL 62706

The Honorable Jim Durkin
House Minority Leader
316 Capitol Building
Springfield, IL 62706

Dear Governor Rauner and Legislative Leaders:

We are writing to urge you to take action on a legislative solution that will allow Illinois' nuclear plants to continue to operate. Last week, we learned that two of Illinois' nuclear plants, Clinton Power Station in Clinton, Illinois and Quad-Cities Generating Station in Cordova, Illinois, may close as early as next year if legislation is not enacted by the state by the end of the current legislative session on May 31, 2016.

Illinois leads the nation in nuclear energy production where its six state-of-the-art plants provide our state with 48 percent of its electricity. These plants produce substantial benefits for Illinois residents and businesses by ensuring reliable carbon-free power, driving economic growth by injecting nearly \$9 billion per year into the state economy, and employing thousands of highly skilled workers in quality, well-paying jobs. Unfortunately, markets and public policies still do not adequately recognize the contributions of these facilities, and it now appears that two of these plants may close prematurely even though they have decades of useful life left.

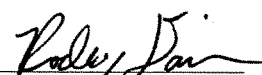
A state report found that Illinois would lose 4,200 jobs and \$1.2 billion in annual economic activity as well as significant increases in electric rates and carbon emissions if those two plants close their doors. Such a result would be bad for the State of Illinois and devastating for the communities in which they operate. The premature closure of these plants would also significantly impede the ability of the state to submit a viable implementation plan for the Clean Power Plan should the Supreme Court's stay be lifted and the rule remain.

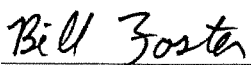
One proposed solution would establish a Zero Emission Standard (ZES) that would make Illinois one of the first states in the nation to recognize the zero-carbon benefits of nuclear energy and keep the plants at risk of premature closure operating.

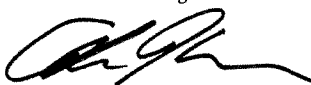
We cannot afford to lose these two plants and the thousands of jobs they support. We hope that you can come together in the remaining days of the legislative session to support a comprehensive solution to prevent the untimely and preventable closure of these plants.

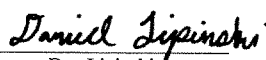
Sincerely,

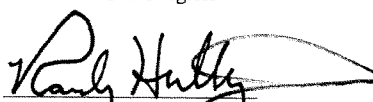

Cheri Bustos
Member of Congress

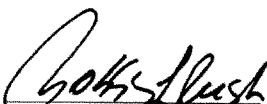

Rodney Davis
Member of Congress


Bill Foster
Member of Congress


Adam Kinzinger
Member of Congress

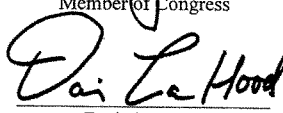

Dan Lipinski
Member of Congress


Randy Hultgren
Member of Congress


Bobby Rush
Member of Congress


Danny Davis
Member of Congress


Robert J. Dold
Member of Congress


Darin LaHood
Member of Congress

LETTERS SUBMITTED BY COMMITTEE RANKING MEMBER

EDDIE BERNICE JOHNSON

PRESS RELEASE

NAACP STATEMENT ON REVISED EPA SMOG RULE

OCTOBER 20, 2015

WASHINGTON, DC – The Environmental Protection Agency revised its rule on limits to ground-level ozone – or smog – downward from 75 parts per billion to 70 ppb. This is the first time the standard has been updated since 2008.

In the years since the last update, scientists and advocates have pushed for a limit of 60 ppb. The Clean Air Science Advisory Committee (CASAC), EPA's own independent scientific advisors, recommended that the limit be lowered to between 60 and 70 ppb stating that "it may not meet the statutory requirement to protect public health with an adequate margin of safety." Although a level of 70 ppb is more protective of public health than the current standard, a limit of 60 ppb would, according to CASAC, provide an adequate margin of safety.

Pulmonologists with the American Lung Association have stated that inhaling smog pollution is "like getting a sunburn on your lungs," often resulting in immediate breathing trouble. Long term exposure to smog pollution is linked to chronic asthma and other respiratory and lung diseases, reproductive and developmental harm, and even premature death.

From Jacqueline Patterson, Director, NAACP Environmental and Climate Justice Program:

While we applaud the progress towards a stronger regulation, our children, families, and communities deserve better than a 70 parts per billion standard. As with the other drivers of climate change, smog pollution has a disproportionate impact on communities of color. Fossil fuel burning plants and heavy-traffic roadways, key sources of ozone emissions, are often situated near our communities. African American children are twice as likely to die of asthma and three times more likely to be admitted to the hospital for an asthma attack while African American adults are more likely to die of lung disease while being less likely to smoke. Therefore, we are disappointed with the failure to even meet the recommendations of the Clean Air Scientific Advisory Committee. As they face greater health challenges with less access to adequate healthcare, this will mean setting our young people back in school and it will mean more missed work at lower pay for their parents. We have heard the claim from the National Black Chamber of Commerce that clean air rules will negatively impact our communities economically. But while the NBCC cites a widely-debunked report to substantiate these claims, our communities are facing worsening health outcomes while also experiencing compromised educational achievements for our children and already existing economic challenges for all. And things will only get worse. July of 2015 was the hottest month in recorded history. Rising temperatures lead to higher levels of smog and soot so we can

expect a fourfold increase in ozone action days by the end of the century. For the health and wellbeing of our children and communities we insist on stronger protective safeguards.

###

*Founded in 1909, the NAACP is the nation's oldest and largest nonpartisan civil rights organization. Its members throughout the United States and the world are the premier advocates for civil rights in their communities. You can read more about the NAACP's work **here**.*



WASHINGTON BUREAU • NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE
1156 15TH STREET, NW SUITE 915 • WASHINGTON, DC 20005 • P (202) 463-2940 • F (202) 463-2953
E-MAIL: WASHINGTONBUREAU@NAACPNET.ORG • WEB ADDRESS WWW.NAACP.ORG

July 23, 2015

Barack Obama
President
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

**RE: NAACP STRONG SUPPORT FOR AN UPDATED, STRONG FINAL OZONE RULE WHICH
MANDATES A STANDARD OF NO MORE THAN 60 PARTS PER BILLION**

Dear President Obama,

On behalf of the NAACP, our nation's oldest, largest and most widely-recognized grassroots-based civil rights organization, I am writing to express our organization's support for an updated, strong final ozone rule which mandates a standard of no more than 60 parts per billion. This rule is important to the NAACP and to the communities we serve and represent because air pollution is a serious problem which disproportionately affects too many racial and ethnic minorities.

Approximately 71% of African Americans live in areas in violation of air pollution standards. Studies have determined that race, over income, is the #1 predictor of whether a person lives near a polluting facility. Furthermore, an African American making \$50,000 per year is more likely to live in an area cited for air pollution than a Caucasian American making \$15,000 per year.

The results of these disparities are as disheartening as they are predictable: Low-income populations and racial and ethnic minorities are exposed to greater levels of certain air pollutants and, in turn, suffer more asthma-related difficulties, from asthma attacks and daily medication needs to work absences and emergency room visits. African American children have double the risk for asthma than white children; and between 2003-2005, African American children had a death rate 7 times that of White children due to asthma. In 2009, African Americans overall were 3 times more likely to die from asthma related causes than the White population, and currently African Americans are hospitalized for asthma at 3 times the rate of White Americans.

This issue is sufficiently important to the NAACP, that in 2011 the delegates to our national convention passed a resolution, which was later ratified by our National Board of Directors and became the policy of the NAACP, calling for an updated strong final Ozone rule mandating a standard of approximately 60 parts per billion (ppb). Our policy has certainly not changed since then: if anything, more of our members are becoming aware of the problems associated with high levels of ozone in the air, and the potential fix. Pursuant to the policies established through our resolution process, the NAACP Washington Bureau has worked hard to defeat several proposals in the U.S. House and the Senate which would in any way impede the ability of the U.S. EPA to implement the Clean Air Act.

In conclusion, allow me to reiterate the NAACP's strong and unwavering support for an ozone rule which mandates a standard of no more than 60 ppb. This would help ensure the right to fresh air and a shot at good health, regardless of your race or ethnicity. Should you have any questions or comments on the NAACP position, please feel free to call me in my office at (202) 463-2940.

Sincerely,



Hilary O. Shelton
Director, NAACP Washington Bureau &
Senior Vice President for Policy and Advocacy

cc: Gina McCarthy
Administrator
US Environmental Protection Agency

LETTERS SUBMITTED BY CHAIRMAN LAMAR S. SMITH

Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges ... <http://www.ibtimes.com/exelon-corp-exc-nuclear-plant-closures-point-w...>

BUSINESS

Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges Facing US Nuclear Sector

BY MARIA GALLUCCI

ON 06/03/16 AT 9:40 AM

Error loading player: No playable sources found



Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges ... <http://www.ibtimes.com/exelon-corp-exc-nuclear-plant-closures-point-w..>



Exelon Corp.'s announcement this week that it plans to shutter two Illinois nuclear plants comes at a harrowing time for the U.S. nuclear power sector. Amid fierce competition from cheap natural gas and withering support from state policymakers, utilities are increasingly struggling to keep the aging, hulking power plants in operation.

Chicago-based Exelon (NYSE:EXC), which owns utilities serving Chicago, Philadelphia and Baltimore plus many power plants, said it will close its Clinton plant in mid-2017 and the Quad Cities plant in mid-2018. The nuclear stations lost a combined \$800 million in the past seven years, despite being two of the company's best-performing plants, Exelon said Thursday.

The power company had been waiting on Illinois policymakers to adopt measures to reward nuclear plants and other carbon-free power sources that help the state meet its climate change targets. The legislation included other provisions that would have slapped new charges on consumer energy bills. The policies are entangled in a broader budget war between Republican Gov. Bruce Rauner and House Speaker Michael Madigan, a Chicago Democrat.

Exelon said the measures would have allowed it to find "a sustainable path forward" in an era of plunging electricity prices and rising maintenance costs. After the Illinois Legislature adjourned Tuesday without taking action, Exelon said it was now "forced" to retire the two nuclear plants, the company said in a statement.

However, that decision isn't necessarily permanent, the Chicago Tribune reported. "The decision can be reversed, but only in narrow circumstances, and as weeks pass a reversal becomes more and more difficult," Exelon spokesman Paul Adams told the newspaper.

Continue Reading Below

Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges ... <http://www.ibtimes.com/exelon-corp-exc-nuclear-plant-closures-point-w...>

[Best Vitamins For Hair Growth](#)

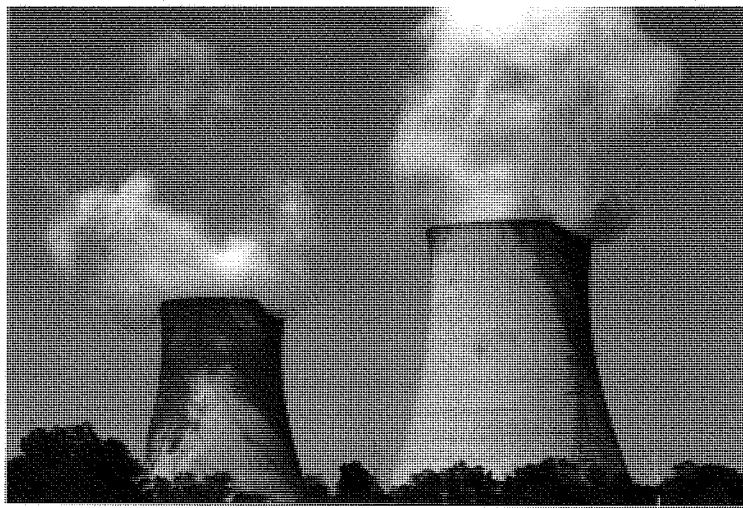
[Remedies For Overactive Bladder](#)

[Symptoms Of Colon Cancer](#)

[Colon Cancer Signs](#)

[Signs Of Lung Cancer](#)

[Vacation Getaway Ideas](#)



The Exelon Byron Nuclear Generating Stations running at full capacity in Byron, Illinois, May 12, 2007.

PHOTO: JEFF HAYNES/AFP/GETTY IMAGES

Other utilities — including New Orleans-based Entergy Corp. and Dominion Resources Inc. in Richmond Virginia — had previously announced nuclear closures for financial reasons. Wholesale electricity recently hit a 15-year low, pushed down by the glut of natural gas from the rise in fracking and an overall slowdown in demand for electricity.

Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges ... <http://www.ibtimes.com/exelon-corp-exc-nuclear-plant-closures-point-w...>

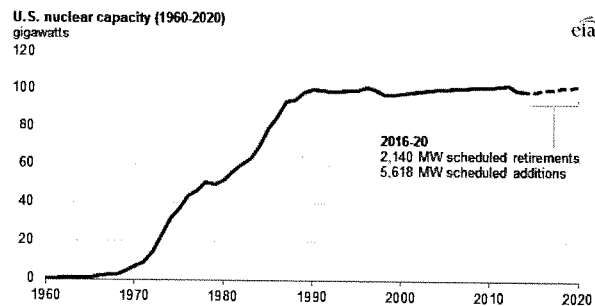
country's ~~99~~ nuclear reactors are more than 30 years old and could operate potentially for as long as 80 years — but only if utilities can afford to keep them running.

Between 15 and 20 nuclear reactors are considered at risk of premature closure within the next five to 10 years, the [Nuclear Energy Institute](#), a trade group, has estimated.

Opponents of nuclear power say that may be a good thing, given the longstanding concerns over radioactive waste disposal and the looming threat of a meltdown, particularly in the wake of the 2011 disaster in Fukushima, Japan. An Associated Press [investigation](#) that year found that radioactive tritium has leaked from three-quarters of U.S. nuclear power sites and in some cases contaminated the drinking wells of nearby homes.

Entergy's Indian Point nuclear plant, which sits just 25 miles north of New York City, has faced a series of mishaps in the last year, including a power failure in the reactor core, an alarm failure and the escape of radiated water into groundwater. Federal officials with the Nuclear Regulatory Commission are now [investigating](#) the degradation of critical stainless steel baffle bolts in one of the plant's nuclear reactors.

"This aging nuclear power plant is becoming increasingly unreliable and puts the welfare of 20 million people at risk every day," Paul Gallay, president of the citizen group Riverkeeper, which opposes Indian Point, said in a [recent opinion piece](#).



Exelon Corp. (EXC) Nuclear Plant Closures Point To Wider Challenges ... <http://www.ibtimes.com/exelon-corp-exc-nuclear-plant-closures-point-w...>

decisions on more than 5,000 MW of capacity by 2025 could result in a net increase in total U.S. nuclear capacity.
PHOTO: U.S. ENERGY INFORMATION ADMINISTRATION

But nuclear power's supporters say that's precisely why policymakers and regulators should give utilities the financial support to upgrade and maintain older reactors. Without these plants, proponents argue, the U.S. would lose a critical power source and its largest single source of carbon-free electricity.

Even as utilities install record numbers of wind turbines and solar panels across the country, nuclear plants still provide nearly 60 percent of emissions-free power, followed by hydroelectric plants at around 18 percent, according to the U.S. Energy Information Administration. Unlike renewables, which depend on steady winds and sunbeams to operate, nuclear reactors can produce power on demand and around the clock.

Declining nuclear power could make it harder for the U.S. to reach its climate change goals, U.S. Energy Secretary Ernest Moniz, a nuclear physicist, recently said. The Obama administration has committed the U.S. to reducing greenhouse gas emissions by as much as 28 percent below 2005 levels by 2025. Under the Clean Power Plan, which targets electricity in particular, states must curb carbon emissions from power plants by 32 percent by 2030.

"The idea is we are supposed to be adding zero-carbon sources, not subtracting or simply replacing by building to just kind of tread water," Moniz said at a May symposium the department organized to discuss the industry's economic prospects. "I think very few understand that nothing else comes close [to nuclear]," he added.

Promoted Links

Ads by Revcontent

THE DAILY CALLER
NEWS FOUNDATION

The Daily Caller: Lawsuit: EPA's 'Independent' Science Advisers Got \$190 Million In Agency Grants

MICHAEL BASTASCH

4:41 PM 05/17/2016

<http://dailycaller.com/2016/05/17/lawsuit-epas-independent-science-advisers-got-190-million-in-agency-grants/>

A free market legal group is suing the Environmental Protection Agency (EPA) for allegedly stacking a scientific advisory panel on air pollution with researchers who had received more than \$190 million in grants from the agency.

The Energy & Environment Legal Institute (EELI) is suing EPA on behalf of the Western States Trucking Association and Dr. James Enstrom, a retired University of California-Los Angeles epidemiologist who was blacklisted for challenging EPA claims about particulate matter.

"The EPA has stacked the panel, which is required by law to be independent and unbiased, with researchers who have received over \$190 million in discretionary grants from the EPA," said Steve Milloy, an attorney with EELI, in a statement.

"This clearly violates the law and makes a mockery of the notion of 'independent' scientific review," he said.

The EPA relies on a panel of scientific advisers, called the Clean Air Scientific Advisory Committee, to validate the science underlying key clean air regulations pushed by the agency. In this case, EELI is asking the court to prevent the EPA from convening a panel tasked with reviewing the science behind agency regulations on fine particulate matter, or PM2.5.

EELI believes the agency has stacked the panel with researchers who will rubber stamp EPA rules regulating PM2.5. EPA also relies on claimed PM2.5 reductions for the majority of health benefits in some of its largest regulations on power plants.

Some 24 of the 26 members of EPA's PM2.5 panel have gotten or are the current recipients of EPA grants. In total, panel members have gotten more

than \$190 million from the agency, according to EELI. Milloy says this violates the federal laws requiring such scientific advisory panels be "independent."

EELI isn't alone in pointing out potential problems with using scientific advisers financially reliant on EPA. Earlier this year, Oklahoma Republican Sen. Jim Inhofe sent a letter to the EPA, criticizing the agency for selecting advisers who benefit from federal largesse.

In 2014, Texas Republican Rep. Lamar Smith pointed out that many science panel members were often peer-reviewing regulations based on their own research, corroding the integrity of the peer-review process.

"Not only does the EPA pay researchers to produce controversial research that advances its PM2.5 regulatory agenda, but the agency pays the very same researchers to review their own controversial work," said Milloy, who also runs the blog JunkScience.com and has been involved in the PM2.5 debate for years.

EPA began regulating PM2.5 in the early 1990s, and today says there's no safe level of exposure to the air pollutant. PM2.5 is a "mixture of harmful solid and liquid particles" that is 2.5 microns or less, or "1/30th the thickness of a human hair." These small particles can get into people's respiratory system and can harm human health and even lead to death after just short-term exposure, according to EPA.

In 2011, former EPA Administrator Lisa Jackson told Congress that PM2.5 "causes premature death."

"It doesn't make you sick. It's directly causal to dying sooner than you should," she said. "If we could reduce particulate matter to healthy levels it would have the same impact as finding a cure for cancer in our country."

The EPA set PM2.5 primary standards at 15 micrograms per cubic meter of air on an annual average basis. Despite the strong warnings, EPA has tested PM2.5 on humans. EPA exposed dozens of human test subjects to PM levels of 600 micrograms per cubic meter — 40 times what the EPA sets as an acceptable outdoor air standard.

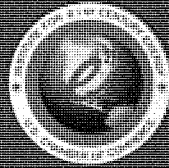
EPA not only testes PM2.5 on humans, they also did not fully disclose the risks of death from PM2.5 exposure — a reversal from public warnings about exposure to the pollutant.

EELI points out EPA uses supposed monetary benefits from PM2.5 reductions as the main justification for massive regulations on power plants, including the Cross-State Air Pollution Rule, Mercury Air Transport Standard and Clean Power Plan.

“The EPA process for commissioning and evaluating PM2.5 research has been so rigged and so biased for so long that many scientists don’t even try to get nominated for CASAC panels any more,” Milloy said. “

“We will review and respond to the lawsuit,” an EPA spokeswoman told the Daily Caller New Foundation.

Follow Michael on Facebook and Twitter



**EPA Clean Power Plan:
EIA's Forecast Shows Benefits
Fall Well Short of Costs . . .
Again**

June 2016

**Institute for 21st Century Energy
U.S. Chamber of Commerce**

1615 H Street NW, Washington, DC

EPA Clean Power Plan: EIA's Forecast Shows Benefits Fall Well Short of Costs . . . Again

Summary

In May 2016, the U.S. Energy Information Administration (EIA) issued its *Annual Energy Outlook 2016*, which includes model runs with and without the Environmental Protection Agency's (EPA) Clean Power Plan (CPP) final rule. The EIA analysis provides an independent look of the impacts CPP will have on the economy and energy markets in the United States.

While there are many aspects of EIA's analysis worthy of review, this report focuses on four main areas:

1. EIA's assessment of CPP demonstrates that over the 2022 to 2030 compliance period the economic costs exceed the climate and monetized ancillary benefits by \$196 to \$529 billion—or from \$78 to \$210 per ton of carbon dioxide reduced—even when using the Obama Administration's own inflated benefits estimates;
2. EIA's assessment shows that, contrary to EPA's claim, both electricity prices and electricity expenditures will be higher under CPP, with total electricity expenditures increasing \$40.5 billion over the compliance period;
3. EIA's assessment shows that in 2030, employment will be 376,000 lower under CPP; and
4. EIA's assessment shows that, contrary to statements by EPA downplaying the impact of its rules on the coal industry, coal output will decline precipitously under CPP instead of rising.

EIA's analysis leaves little room for doubt that EPA's CPP is a bad deal for the American economy.

Introduction

Since the Environmental Protection Agency (EPA) issued its Clean Power Plan (CPP) proposed ruleⁱ to regulate carbon dioxide emissions from electricity generating stations in June 2014, the agency has touted the alleged environmental and economic benefits of the rule based on its own analysis.ⁱⁱ As the 17th century French mathematician Blaise Pascal famously observed, however, “The justest man in the world is not allowed to be judge in his own cause,” and what goes for men and women should go for regulatory agencies, too.

In 2014, House Committee on Science, Space & Technology Chairman Lamar Smith tasked the Energy Information Administration (EIA) with taking an independent look at the economic and energy market effects of the proposed CPP using its National Energy Modeling System. We produced a detailed look at the results of the EIA’s analysis and found that its model runs showed economic costs greatly exceeding benefits under the rule,ⁱⁱⁱ a very different story from EPA’s.

EPA’s story has not changed in the CPP final rule. In its “FACT SHEET: Clean Power Plan By The Numbers,” the agency contends that, “The Clean Power Plan has public health and climate benefits worth an estimated \$34 billion to \$54 billion per year in 2030, far outweighing the costs of \$8.4 billion.”^{iv} Is this true?

In May of this year, EIA issued the 2016 edition of its *Annual Energy Outlook (AEO2016)*,^v its yearly energy market forecast peering 25 years into the future (to 2040). *AEO2016* includes both a model run with the CPP final rule (the “CPP Case”) and one without it (the “No CPP Case”).^{vi} Comparing these two forecast scenarios, it is possible to get an unbiased look at the economic and other impacts of EPA’s final rule.

EIA describes the CPP Case^{vii} this way: “A business-as-usual trend estimate, given known technology and technological and demographic trends. The Reference case [*i.e.*, CPP Case] assumes Clean Power Plan (CPP) compliance through mass-based standards (emissions reduction in metric tons of carbon dioxide) modeled using allowances with cooperation across states at the regional level, with all allowance revenues rebated to ratepayers.” In other words, EIA has modeled what EPA views as the most cost-effective compliance option.

EIA describes the No CPP Case this way: “A business-as-usual trend estimate, but assumes that CPP is not implemented.”

The focus of this analysis will be on the comparison between EIA’s No CPP and CPP scenarios for the nine-year compliance period from 2022 to 2030.^{viii} Also note that for consistency, all dollar figures have been converted into chained 2015 dollars. Also, all carbon dioxide emissions are from fossil fuel combustion only.

Carbon Dioxide Emissions

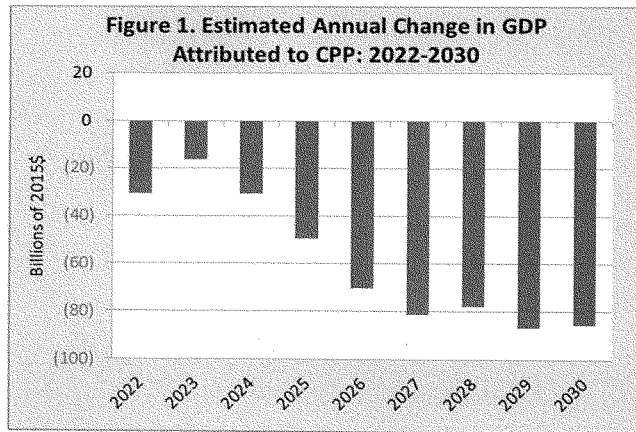
Under its CPP Case, EIA forecasts that U.S. power sector carbon dioxide emissions would plunge below the No CPP Case level by 12% in 2025 before settling in at about 20% lower in 2030. Small cuts also are recorded in other sectors of the economy. Compared to the No CPP Case, CPP is expected to lower total cumulative carbon dioxide emissions by 2.5 gigatons over the compliance period, an average of about 280 million metric tons each year.^{ix} From 2022 on, each year sees progressively bigger annual emissions reductions, rising from 126 million metric tons in 2022 to 383 million metric tons in 2030.

EIA's CPP Case projection indicates that by 2030, carbon dioxide emissions from the power sector in the CPP Case will be 35% below 2005 emissions—three percentage points more than the 32% goal announced by the administration.

Economic Costs vs. Global Social Cost of Carbon Benefits

EIA data show that cutting emissions so rapidly and deeply would come at a tremendous economic cost, both in total and in a relation to each ton of carbon dioxide reduced. When set against EIA's No CPP scenario, cumulative economic costs over CPP's 2022 to 2030 compliance period are an estimated \$529 billion in lost GDP. Annual losses range from \$16 billion in 2023 to \$87 billion in 2029 (Figure 1). The average GDP hit over the compliance period is \$59 billion. These values are considerably higher, in most cases by an order of magnitude, than EPA's estimated compliance costs of well less than \$10 billion per year.

It is often argued, however, that the value of the carbon dioxide emission reductions, as measured by the "Social Cost of Carbon" (SCC), would turn even GDP losses such as these into gains. The SCC represents an attempt to



Source: Annual Energy Outlook 2016.

measure the health, property, agricultural, ecosystem, and other presumed impacts of emitting a ton of carbon dioxide. It is also important to note that because greenhouse gases are well mixed in the atmosphere, the impacts of carbon dioxide emissions are considered to be global in nature (unlike air pollutants, whose impacts largely are local). This means the climate costs or benefits would be felt primarily outside of the United States.

Whether it is even possible to measure the SCC with any precision remains a matter of controversy. Nevertheless, the president's Council of Economic Advisors asserts that estimating the SCC is a "critical step in formulating policy responses to climate change," and further that it "provides a benchmark that policymakers and the public can use to assess the net benefits of emissions reductions stemming from a proposed policy."^x

SCC estimates were developed by the administration's Interagency Working Group on Social Cost of Carbon initially in November 2010^{xi} and again in May 2013. The figures produced in the latter report were subsequently updated in July 2015. The Working Group generated a range of estimates using discount rates of 3.0%, 2.5%, and 5% discount rate. A series also was calculated representing the 95th percentile of the three SCC estimates using a 3% discount rate (3%/95th percentile).^{xii}

Using these SCC values as a major tool in justifying regulation is an unprecedented departure from how the federal government develops and employs these kinds of metrics. While the SCC has been referenced in the cost-benefit analyses of some rulemakings, including EPA's CPP, it is far from clear that the use of such a metric to defend regulatory action is authorized by any law. Moreover, none of the SCC calculations have gone through any rulemaking process of the type one would normally expect for this kind of far-reaching analytical tool, nor have they been subject to the rigors of notice, public comment, and data quality. They also have never been subject to any kind of Congressional review or approval.

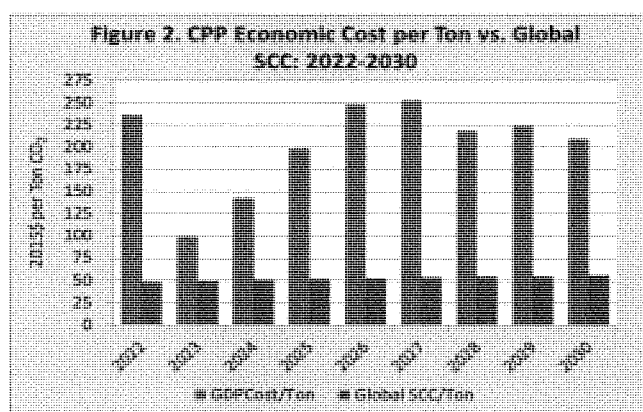
This is exactly the kind of openness and transparency that is required under the Administrative Procedures Act and Executive Order 12866 when using scientific and technical data. As a consequence of these procedural failures, not to mention the questionable accuracy of the SCC values themselves,^{xiii} the SCC calculation should be subject to greater transparency, notice, public comment, data quality, and accountability to Congress.

Nevertheless, for the purposes of this analysis any lingering doubts about its SCC's value as an analytical tool will be set aside, and it will be stipulated that the Interagency Working Group's central SCC estimates using a 3% discount rate are spot on. Given this assumption, are the claimed SCC benefits are large enough to offset the economic losses EIA forecasts?

Figure 2 shows the annual economic cost per ton of carbon dioxide calculated for 2022 through 2030 and the administration's Global SCC estimate for that year. As the chart shows, the cost for each ton of carbon dioxide reduction under EPA's plan far outstrips the benefits. Cost per tons average an extraordinarily high \$210 over the 2022 to 2030 period, ranging from a low of

\$99 (in 2023 (to a high of \$253 (in 2027).

To produce a *net* climate benefit, the SCC must be greater than the economic cost of each ton of carbon dioxide cut. But as Figure 2 shows, this is certainly not the case here. Indeed, over the compliance period, the average per-ton economic loss is almost four times greater than the SCC benefit.



Sources: EIA Annual Energy Outlook 2016; Interagency Working Group on SCC.

Taking into account these SCC estimates, contentious as they are, the net loss to the economy over the compliance period falls by \$135 billion to a still large \$394 billion. That equates to an average net loss of about \$44 billion per year^{xiv} and a net cost per ton of carbon dioxide reduced of \$157. In other words, even by the Administration's own highly controversial standard, the economic costs of the CPP exceed the climate benefits.

Economic Costs vs. Domestic Social Cost of Carbon Benefits

Most of the claimed climate benefits from decreasing emissions would occur beyond U.S. borders, which means that the SCC benefits claimed for the United States must be smaller than those claimed globally.

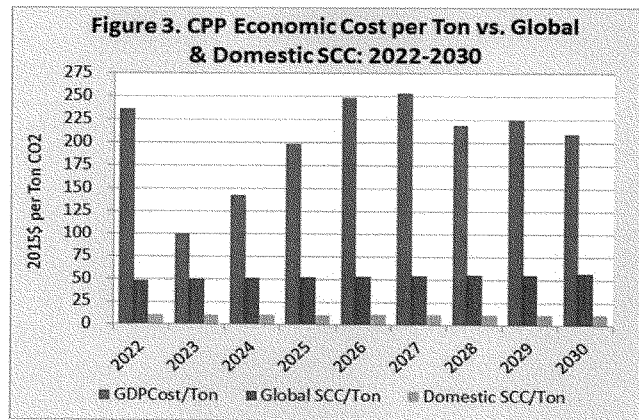
Although the Interagency Working Group tasked with developing the SCC hesitated to create a "domestic SCC," for reasons that are not entirely clear, it admitted in its 2010 report that the domestic SCC would be a small fraction of the Global SCC, concluding: "[W]ith a 2.5 or 3 percent discount rate, the U.S. benefit is about 7-10 percent of the global benefit, on average, across the scenarios analyzed. Alternatively, if the fraction of GDP lost due to climate change is assumed to be similar across countries, the domestic benefit would be proportional to the U.S. share of global GDP."

Figure 3 shows what the Global SCC looks like after it has been adjusted using the GDP-share method described above, clearly is more charitable option for EPA's case. To calculate the U.S. share of global GDP, the Department of Agriculture Economic Research Service's International Macroeconomic Data Set was used.^{xv} As is clear from the chart, the GDP-share method yields a Domestic SCC within a range of about \$10 to \$12 per ton of carbon dioxide reduced over 2022 to 2030. So for each ton of carbon dioxide reduced, the economic cost is about 19 times greater than the societal benefit.

Applying this Domestic SCC to revise the cost and benefit figures calculated earlier, the cumulative net economic losses decreases little, from \$529 billion to \$501 billion for an average of net annual loss of \$56 billion and an average per-ton emissions reduction cost of \$199.

Co-Benefits

One of the unusual things about the CPP final rule is how little emphasis EPA places on climate benefits to support its—and given the results detailed above, maybe that should not be surprising. EPA instead rests practically its entire economic justification for the rule on the monetized ancillary benefits of pollution reduction.



Sources: EIA AEO2016; Interagency Working Group on SCC; U.S. Department of Agriculture Economic Research Service International Macroeconomic Data Set; and EPA CPP Final Rule Regulatory Impact Analysis.

We will leave aside the debate on how accurate measurements of these benefits really are and accept the values EPA used in its Regulatory Impact Analysis for final rule.^{xvi} EPA provides a low and a high "benefit per ton" estimate for a range of pollutants in 2020, 2025, and 2030 based on EPA's own air-quality modeling. For the purposes of this analysis, the midrange of the two extremes (using the 3% discount rate) were used to calculate total co-benefits for these three years using EIA's AEO2016 output.

In general, our estimates for co-benefits are larger than EPA's. Our 2020 average is \$1.9 billion against EPA's average of \$0.8 to \$3.8 billion; our 2025 average is \$17.7 billion against EPA's

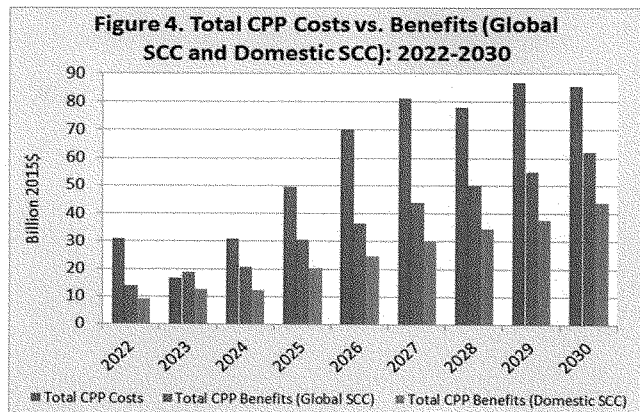
average of \$12.4 to \$13.5 billion; and our 2030 average is \$39.2 billion against EPA's average of \$22.6 to \$27.1 billion.^{xvii}

Interpolation then was used to calculate per ton co-benefits and, using *AEO2016* output, total co-benefits for the intervening compliance years. These values were added to the Global and Domestic SCC values to derive total annual climate plus co-benefit figures for 2022 to 2030 that could be set against the GDP losses. The results for each compliance year are presented in Figure 4.

Looking at the chart, it is clear that the addition of co-benefits to the SCC estimates is not enough to outweigh the GDP losses linked to CPP. We reckon that total GDP losses over the period from 2022 to 2030 amount to \$196 billion when ancillary benefits are combined with a Global SCC and \$303 billion when ancillary benefits are combined with a Domestic SCC (Table 1).

These results use the administration's central SCC estimate at the 3% discount rate and EPA's midrange estimate of ancillary benefits estimates also using a 3% discount rate. It was noted above, however, that the Interagency Working Group on the SCC developed other SCC estimates using different discount rates and that EPA had low and high estimates of co-benefits at the 3% discount rate.

Total benefits also were calculated using these in different combinations. In only two cases—the 3%/95th percentile Global SCC combined with the high co-benefits and the 3%/95th percentile Global SCC combined with the average co-benefits—yielded benefits that



Sources: EIA *AEO2016*; Interagency Working Group on SCC; U.S. Department of Agriculture Economic Research Service International Macroeconomic Data Set; and EPA CPP Final Rule Regulatory Impact Analysis.

outweighed costs over the compliance period (more because of the extraordinarily high 3%/95th percentile SCC estimates than the high ancillary benefits). The 3%/95th percentile SCC estimates represent the worst case scenario and are widely believed

Table 1. Cost & Benefits of Clean Power Plan Summary: 2022-2030

Carbon Dioxide Emissions	Total	Annual Average
	(Million Metric Tons)	
Power Sector	(2,366)	(263)
Total	(2,517)	(280)
Costs & Benefits	Total	Average Cost or Benefits per Ton CO ₂
	(Billion Chained 2015\$)	(Chained 2015\$)
GDP	(529)	(210)
Global SCC	135	54
GDP with Global SCC	(394)	(157)
Co-Benefits	198	79
GDP With Global SCC & Co-Benefits	(196)	(78)
Domestic SCC	28	11
GDP with Domestic SCC	(501)	(199)
Co-Benefits	198	79
GDP With Domestic SCC & Co-Benefits	(303)	(120)

Sources: EPA Clean Power Plan Regulatory Impact Analysis; EIA Annual Energy Outlook 2016.

to be unreasonably high. All other combinations of Global and Domestic SCC and high and low ancillary benefits showed net losses during the compliance period.

In our 2015 analysis of EIA's examination of the CPP proposed rule, we concluded that, "No matter how one slices and dices the data, EIA's analysis leaves little room for doubt that EPA's Clean Power Plan *flops badly as a climate policy*, even on the administration's own terms and using the administration's own methods, data, and exaggerated SCC."

There is nothing in

the EIA's AEO2016 or in EPA's CPP final rule that would alter this conclusion in any way.

Electricity Prices and Expenditures

When EPA proposed CPP back in June 2014, its Regulatory Impact Analysis boasted that while the price consumers pay for electricity may increase under CPP, their electricity bills would decrease because of lower demand driven by enhanced demand-side energy management—energy efficiency. So while you might be paying a higher rate, you would be using less and thus paying less.

We noted back then how EPA's target of a 1.5% annual energy efficiency improvement would be incredibly difficult to achieve—something 17 states brought to the attention of EPA in their comments on the rule.^{xviii} In our earlier look at EIA's assessment of the proposed EPA rule,^{xix} we found that not only did electricity costs rise in EIA's forecast, but electricity bills did, too.

When EPA issued its final rule last August, it persisted with the same claim. Its *Regulatory Impact Analysis* for the final rule contends that under EPA's preferred Mass-Based approach, the average electricity bill, after rising initially, will be about 7.7% smaller than otherwise in 2030. "These reduced electricity bills," argues EPA, "reflect the combined effects of changes in both average retail rates (driven by compliance approaches taken to achieve the state goals) and lower electricity demand (driven by demand-side energy efficiency)."

EIA's *AEO2016* shows that EPA got it wrong again.

Table 2. Change in Electricity Demand, Prices & Expenditures: CPP vs. No CPP

Metric	EPA Regulatory Impact Analysis (Mass Based)	EIA Analysis of CPP
	(Percent Change from No CPP Case)	
Electricity Generation in:		
2020	(1)	(0.2)
2025	(5)	(1.0)
2030	(8)	(2.5)
Electricity Prices in:		
2020	3.0	0.3
2025	2.0	1.5
2030	0.0	4.9
Electricity Expenditures in:		
2020	2.4	0.2
2025	(2.7)	0.5
2030	(7.7)	2.4

Sources: EIA *Annual Energy Outlook 2016*; EPA *Clean Power Plan Regulatory Impact Analysis*.

While EIA estimates that electricity sales will decline in the CPP Case compared to the No CPP Case, the electricity price increases CPP will deliver are expected to overwhelm the declines in sales, leaving consumers with bigger, not smaller, electricity bills (Table 2). Calculations based on EIA's data suggest that by 2030 electricity expenditures over all sectors will be on average 2.4% greater in the CPP Case versus the No CPP Case (1.8% for residences, 2.3% for commercial buildings, 3.6% for industry, and 5.0% for transportation). For 2030, this represents a not insignificant 10-percentage point average difference of opinion between EPA and EIA.

Rate increases such as those being forecast by EIA will have real economic consequences. EIA's forecast indicates that consumers across all economic sectors will pay an additional \$40.5 billion more for electricity over the 2022 to 2030 period (Table 3), an entirely needless burden on families—especially low-income families—and businesses.

Employment

It was reported last April that EPA Administrator Gina McCarthy, at a meeting of the Environmental Council of the States, said, "I can't find one single bit of evidence that we have destroyed an industry or significantly impacted jobs other than in a positive way."^{xx}

Table 3. Cumulative Increases in Electricity Expenditures Under Clean Power Plan

Sector	2022 - 2030 (Billion 2015\$)
U.S. Total	40.5
Residential	15.8
Commercial	13.9
Industrial	10.0
Transportation	0.8

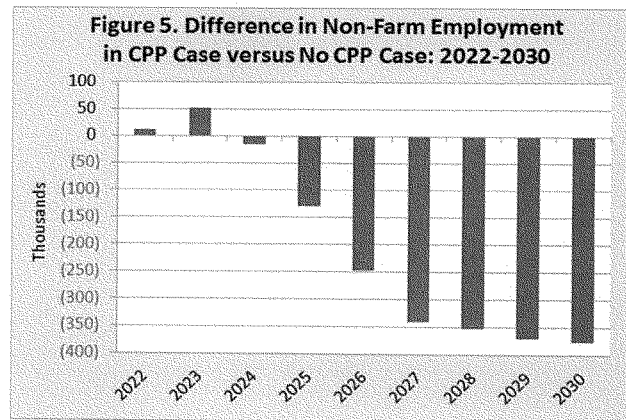
Source: EIA Annual Energy Outlook 2016.

EPA's Regulatory Impact Analysis doesn't draw any conclusions about the overall impact of CPP on employment. EIA's AEO2016 is more conclusive. It indicates that CPP will cost hundreds of thousands of jobs over the 2022 through 2030 compliance period.. Its AEO2016 indicates that CPP will cost hundreds of thousands of jobs over the 2022 through 2030 compliance period.

As Figure 5 shows, after an initial and short-lived bump in 2023, jobs losses mount rapidly. By 2030, EIA forecasts that under the CPP Case there would be about 376,000 fewer non-farm jobs than under No CPP Case. This projection from the Obama Administration's own energy experts hardly heralds the "positive way" CPP will affect jobs, as asserted by EPA's administrator.

Impact on Coal Industry

EPA also is fond of arguing that woes in the coal industry are the result of market conditions that have little to do with EPA regulation. During an April 2016 Senate hearing, Administrator McCarthy averred,



Source: EIA Annual Energy Outlook 2016.

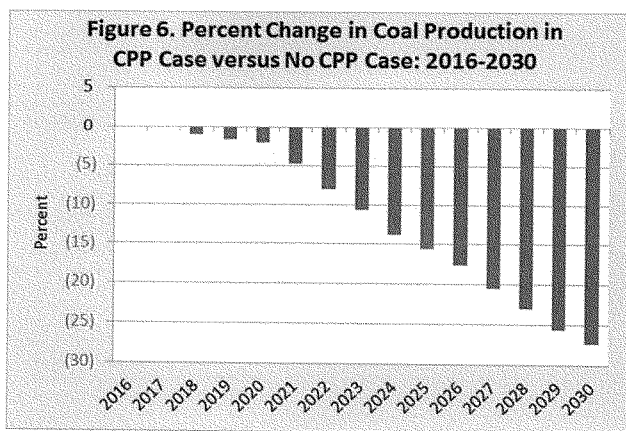
“There are challenges in those [coal] communities, without question, but the vast majority of that is related directly to the market shift, not to EPA regulation.”^{xxi} While it is undeniable that competition from inexpensive natural gas—the next fuel on EPA’s hit list—has taken a bite out of coal demand, EPA has not been an innocent bystander.

Take EPA’s Mercury and Air Toxics (MATS) rule, which the U.S. Supreme Court found to be in violation of the Clean Air Act (a ruling all but ignored by EPA).^{xxii} EIA recently noted how low-cost natural gas has lowered coal’s share of electricity generation, but it also added this about the impact of EPA’s MATS requirements:

About 30% of the coal capacity that retired in 2015 occurred in April, which is when the U.S. Environmental Protection Agency’s Mercury and Air Toxics Standards (MATS) rule went into effect. Some coal plants applied for and received one-year extensions, meaning that many of the coal retirements expected in 2016 will likely also occur in April. Several plants have received additional one-year extensions beyond April 2016 based on their role in ensuring regional system reliability.^{xxiii}

But as damaging as the impact of MATS was, EIA’s model run suggests the damage of CPP will be even more severe and will be felt almost instantly. EIA forecasts that with CPP in place, coal production would decline rapidly, from nearly 848 million short tons in 2016 to just 664 million tons in 2030, the end of the CPP compliance period. That’s a drop of 22%. EIA’s No CPP Case, in contrast, projects that over the same period coal production would rise almost 8% to 913 million short tons in 2030.

Put differently, EIA projects that 2030 coal output would be 27% lower in the CPP Case versus the No CPP Case (Figure 6). *Pace* the EPA administrator’s comment cited earlier, a drop of this magnitude may not amount technically to “destroy[ing] an industry,” but it comes perilously close.



Source: EIA Annual Energy Outlook 2016.

Conclusion

EIA's independent analysis of EPA's CPP final rule shows that under CPP, the economy will suffer net economic losses averaging from \$22 to \$59 billion per year over the 2022 to 2030 compliance period, rising electricity rates (4.9% in 2030) and bills (2.4% in 2030), and fewer jobs (376,000 in 2030). CPP also poses a direct risk to the coal sector. The results out-lined here even obtain when taking into account the inflated benefits the administration has used to support its new rule.

In addition to the economic grounds for opposing CPP laid out above, CPP has serious legal vulnerabilities. EPA's CPP final rule is based on authorities the agency claims under a rarely-used section, 111(d), of the Clean Air Act. In its *Utility Air Regulatory Group v. EPA* ruling, the Supreme Court warned EPA:

When an agency claims to discover in a long-extant statute an unheralded power to regulate "a significant portion of the American economy," we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast "economic and political significance" [citations omitted].^{xxiv}

In using a little-used 300-word provision of the Clean Air Act to redesign fundamentally the nation's electricity markets, EPA has gone far beyond the bounds of the regulatory authority granted to it by Congress. It is no wonder, then, that the Supreme Court took the unprecedented step of CPP staying EPA's final rule until all legal challenges have been resolved.

CPP also faces unprecedented opposition, with lawsuits filed by 28 states, 24 national trade associations (including a coalition of 16 trade groups led by the U.S. Chamber), 37 rural electric cooperatives, 10 major companies, and three labor unions all objecting to the plan. Perhaps the best demonstration of the incredible breadth of business opposition to the rule, however, comes in the form of an amicus brief filed by 166 state and local Chambers in support of the petitioners.^{xxv}

The Energy Institute believes that the Clean Air Act is the wrong vehicle for regulating greenhouse gas emissions, both from an economic and a legal perspective. EIA's *AEO2016* analysis goes a long way to making the economic case for opposing EPA's power grab.

Endnotes

- ⁱ EPA. 2014. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule*. Federal Register Vol. 79, No. 117. Available at: <https://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf>.
- ⁱⁱ EPA. 2014. *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*. Available at: <https://www.epa.gov/sites/production/files/2014-06/documents/20140602ria-clean-power-plan.pdf>.
- ⁱⁱⁱ Institute for 21st Century Energy. 2014. *EIA Analysis Shows EPA's Carbon Regulations All Economic Pain for No Climate Gain*. Available at: <http://www.energyxxi.org/eia-analysis-shows-epas-carbon-regulations-all-economic-pain-no-climate-gain>.
- ^{iv} EPA. 2015. "FACT SHEET: Clean Power Plan by the Numbers." Available at: <https://www.epa.gov/sites/production/files/2015-08/documents/fs-cpp-by-the-numbers.pdf>.
- ^v EIA. 2016. *Annual Energy Outlook 2016 (Early Release)*. Available at: <http://www.eia.gov/forecasts/aeo/er/>.
- ^{vi} Like with EPA's CPP proposed rule, this comparative analysis was requested by House Science Committee Chairman Smith.
- ^{vii} EIA's CPP Case is actually its "Reference" case. We have labeled it the CPP Case for this report for clarity.
- ^{viii} EIA's assumes the CPP goal of a 32% reduction in power sector carbon dioxide emissions in 2030 from the 2005 level is not increased after 2030, an unrealistic—but given what is known, a not unreasonable—assumption if EPA's rule survives political and legal challenges.
- ^{ix} For the power sector alone, the figures are nearly 2.4 gigatons and 263 million metric tons.
- ^x White House Council of Economic Advisors. 2013. *Economic Report of the President*. Chapter 6: Climate Change and the Path Toward Sustainable Energy Sources. Available at: https://www.whitehouse.gov/sites/default/files/docs/erp2013/ERP2013_Chapter_6.pdf.
- ^{xi} Interagency Working Group on Social Cost of Carbon, United States Government. 2010. *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866*. Available at: <https://www3.epa.gov/otaq/climate/regulations/scc-tsd.pdf>.
- ^{xii} Interagency Working Group on Social Cost of Carbon, United States Government. 2015. *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866*. [May 2013, Revised July 2015]. Available at: <https://www.whitehouse.gov/sites/default/files/omb/inforeg/scc-tsd-final-july-2015.pdf>.
- ^{xiii} See for example: Dayaratna, K. et al. 2016. "Empirically-Constrained Climate Sensitivity and the Social Cost of Carbon". *Social Science Research Network*. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2759505.
- ^{xiv} Applying the other SCC estimates developed by the Interagency Working Group also leads in each case to a net economic loss over the compliance period ranging from \$123 billion to \$488 billion.
- ^{xv} Available at: <http://www.ers.usda.gov/data-products/international-macroeconomic-data-set.aspx>.
- ^{xvi} EPA. 2015. *Regulatory Impact Analysis for the Clean Power Plan Final Rule*. Available at: <https://www.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule-ria.pdf>.
- ^{xvii} The range of EPA values is because of difference in results from modeling using the Rate-Based and the Mass-Based compliance approaches.
- ^{xviii} Institute for 21st Century Energy. 2015. *In Their Own Words: A Guide to States' Concerns Regarding the Environmental Protection Agency's Proposed Greenhouse Gas Regulations for Existing Power Plants*. Available at: <http://www.energyxxi.org/sites/default/files/FINAL%20EPA%20CPP%20Report%20FINAL.pdf>.
- ^{xix} Eule, S.D. 2015. Testimony Before the U.S. House of Representatives Committee on Science, Space, & Technology, Subcommittee on Environment and Subcommittee on Energy Hearing on "U.S. Energy Information Administration Report: Analysis of the Impacts of the EPA's Clean Power Plan." Available at: http://www.energyxxi.org/sites/default/files/150624_SteveEule_Testimony_EIA%20Analysis%20of%20EPA%20Clean%20Power%20Plan_House%20Science%20sbcmr.pdf.
- ^{xx} Harball, E. 2016. "McCarthy: Not 'one single bit of evidence' climate rule hurt jobs." *ClimateWire*. Available at: <http://www.eenews.net/climatewire/stories/1060035572/>.

^{xxi} Harball, E. 2016. "Lawmakers, McCarthy spar over coal job losses." *ClimateWire*. Available at: <http://www.eenews.net/stories/1060035909>.

^{xxii} Supreme Court of the United States. 2014. Opinion of the Court. *Michigan et al. v. Environmental Protection Agency et al.* Available at: http://www.supremecourt.gov/opinions/14pdf/14-46_10n2.pdf.

^{xxiii} EIA. 2016. "Coal made up more than 80% of retired electricity generating capacity in 2015." *Today in Energy*. Available at: <http://www.eia.gov/todayinenergy/detail.cfm?id=25272>.

^{xxiv} Supreme Court of the United States. 2014. *Utility Air Regulatory Group v. Environmental Protection Agency et al.* Available at: http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf.

^{xxv} PA Chamber of Business and Industry. 2016. "Top Business Groups Back Legal Effort to Overturn Costly EPA Power Plant Regulations." Available at: <https://www.pachamber.org/newsroom/articles/index.php?id=1252>.

THE LEADER IN ENERGY & ENVIRONMENTAL POLICY NEWS

**CLEAN POWER PLAN:
EPA boss predicts win in legal brawl against 'Goliath'**

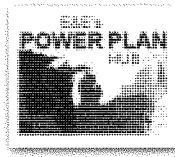
Robin Bravender, E&E reporter

Published: Tuesday, May 24, 2016

To Gina McCarthy, the high-stakes legal battle over the Clean Power Plan feels like David taking on Goliath.

The U.S. EPA administrator pointed to the biblical story about the righteous underdog's victory Saturday during a commencement speech at Vermont Law School. In the lawsuit over her agency's climate rule, "the list of attorneys representing the plaintiffs went for 22 pages," McCarthy said. That's about as many people as her entire agency employs, she joked. "Sometimes it feels like David and Goliath."

But, she added, "we will win all the way up through the Supreme Court." EPA "always" wins "when it's important," she said.



McCarthy noted that the massive case involving more than 150 parties suing EPA over the Clean Power Plan has generated two "first-of-a-kind legal decisions," referring to the Supreme Court's decision to freeze the rule and a federal appeals court's unusual decision to hear arguments before the full court rather than a panel of three judges.

"I will admit that I'd rather be bored every once in a while," McCarthy said. "But we'll deal with these issues moving forward."

She noted that 69 alumni of Vermont Law School -- which frequently tops environmental law school rankings -- are currently working at EPA.

McCarthy has a joint Master of Science in environmental health engineering and planning and policy from Tufts University, but no law degree.

"I've never liked lawyers until very recently," she said, to laughter. "If I was to describe my anxiety dream, it would be filled with lawyers. ... I am in Washington, living that dream."

She joked that the graduates have "learned firsthand what it means to be arbitrary and capricious," and urged them to take some time to feel pride before they start "cramming for the bar or heading to the bar."

McCarthy also praised President Obama's efforts on climate change and his tenure more broadly.

She noted the president's previous work as a constitutional law professor. "How boring is that?" she joked. "But he has not been boring. He's done pretty damn well for himself and for us."

She lauded his health care, economic and social legacy. "Today, anyone in America can marry whomever the hell they want to marry," she said.

She touted the work the Obama administration has done to clamp down on greenhouse gas emissions using the Clean Air Act. And she said her agency has no plans to slow down this year. Obama has told her, "Gina, put on your sneakers because we're running across the finish line. There is no lame duckery in this administration," she said.

McCarthy urged the new lawyers to take chances in their careers. "If a door opens to you, walk through it," she said, noting that she never expected to become EPA's boss.

"I want you to take the job that you're not sure you can do," she told them. As the end of the Obama administration approaches, she said she expects to embrace "the next interesting thing that comes along" in January.



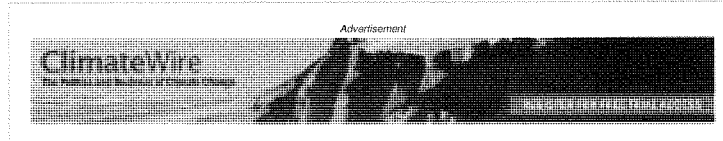
EPA Administrator Gina McCarthy.
Photo by U.S. Mission / Eric Dretlers,
courtesy of Flickr.

CLEAN POWER PLAN: EPA boss predicts win in legal brawl against 'G...

<http://www.eenews.net/greenwire/2016/05/24/stories/1060037761>

[Click here](#) to watch the commencement.

Twitter: [@rbravender](#) | Email: rbravender@eenews.net



The Premier Information Source for Professionals Who Track Environmental and Energy Policy.

© 1996-2016 E&E Publishing, LLC [Privacy Policy](#) [Site Map](#)

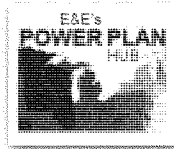
CLEAN POWER PLAN: Emails reveal EPA disappointment after Supreme Court decision

Elizabeth Harbell, E&E reporter
Greenwire: June 3, 2016 at 11:35 AM

"There is no sugar-coating it."

That was the initial reaction Feb. 9 of Avi Garbow, U.S. EPA general counsel, to the Supreme Court's decision to stay the Obama administration's signature climate rule, sent in an email to staffers hours after the stay was announced.

Garbow called the Supreme Court's decision "difficult news" but went on to encourage EPA staffers, saying, "I just want you all to know how proud I am" of their work on the Clean Power Plan.



In a later email, acting EPA air chief Janet McCabe called the stay "obviously very disappointing."

Emails sent between top EPA officials after the Supreme Court's surprise decision to stay the Clean Power Plan, obtained by E&E through a Freedom of Information Act request, show widespread disappointment throughout the agency but also a determination to continue the agency's work on climate change.

"It is not a decision on the merits, however, and we remain as sure as we were yesterday of the sound legal basis for the rule and that the Clean

Power Plan is an important, if lawful program under the Clean Air Act to address the serious threat of climate change," McCabe wrote in an email to staffers dated Feb. 10.

In her first public appearance after the stay at a meeting of state regulators in Washington, D.C., EPA Administrator Gina McCarthy said she was "disappointed" in the stay but confident the rule will ultimately survive the court system (*E&ENews PM*, Feb. 11).

"One decision to stay doesn't mean that the CPP isn't alive and isn't going to survive," McCarthy said Feb. 11.

In the following months, McCarthy reiterated her confidence in the rule's legality and even dismissed the significance of the stay at one point, saying "we didn't lose anything yet" in response to a question suggesting EPA had lost a preliminary court battle over the Clean Power Plan (*Greenwire*, April 21).

The Clean Power Plan is considered the linchpin of the Obama administration's effort to address climate change on both domestic and international fronts.

EPA's regulation, rolled out in August 2015, would slash carbon emissions from U.S. power plants 32 percent from 2005 levels by 2030. The electricity sector is the No. 1 source of greenhouse gas emissions in the United States.

But soon after its release, the Clean Power Plan was challenged by 27 states and over 100 other opponents, including industries, utilities and labor groups.

Both supporters and opponents of the Clean Power Plan were caught off guard by the Supreme Court's Feb. 9 decision to stay the rule.

While it's widely expected the rule's legality will be decided by the Supreme Court, the stay was considered unprecedented. The U.S. Court of Appeals for the District of Columbia Circuit declined a request to stay the rule in January, and the challengers' subsequent stay request to the Supreme Court was considered a long shot.

The one-page decision provided no clues as to why the court decided to stay the rule.

Nevertheless, the stay has had a widespread chilling effect on the massive planning effort that was taking place across the United States in preparation for the climate rule.

CLEAN POWER PLAN: Emails reveal EPA disappointment after Supre...

<http://www.eenews.net/stories/1060038247>

EPA announced that a September deadline for states to submit initial implementation plans no longer applies. Many states have halted the technical planning work, and a number of governors and legislatures have prohibited environment agencies from expending resources on the rule unless the stay is lifted.

However, about 20 states -- many of which are supporting EPA in court -- continue to strategize ways to make the power-sector emissions cuts required by the Clean Power Plan. Many utilities also have indicated they will continue planning for increased carbon constraints.

The Supreme Court is not expected to hear the case until late 2017 or early 2018.

Reporters Emily Holden, Robin Bravender and Evan Lehmann contributed.

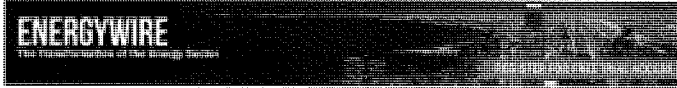
Twitter: @ElizHerball | Email: eharball@eenews.net

Want to read more stories like this?

E&E is the leading source for comprehensive, daily coverage of environmental and energy politics and policy.

[Click here](#) to start a free trial to E&E -- the best way to track policy and markets.

Advertisement



The Premier Information Source for Professionals Who Track Environmental and Energy Policy.

© 1996-2016 E&E Publishing, LLC [Privacy Policy](#) [Site Map](#)

*Perspective***Inconsistencies in Risk Analyses for Ambient Air Pollutant Regulations**

Anne E. Smith*

This article describes inconsistencies between health risk analyses that the U.S. Environmental Protection Agency (EPA) uses to support its decisions on primary National Ambient Air Quality Standards (NAAQS), and in the associated Regulatory Impact Analyses (RIAs) that accompany each NAAQS rulemaking. Quantitative risk estimates are prepared during the NAAQS-setting deliberations using inputs derived from statistical associations between measured pollutant concentrations and health effects. The resulting risk estimates are not directly used to set a NAAQS, but incorporated into a broader evidence-based rationale for the standard that is intended to demonstrate conformity with the statutory requirement that primary NAAQS protect the public health with a margin of safety. In a separate process, EPA staff rely on the same risk calculations to prepare estimates of the benefits of the rule that are reported in its RIA for the standard. Although NAAQS rules and their RIAs are released simultaneously, the rationales used to set the NAAQS have become inconsistent with their RIAs' estimates of benefits, with very large fractions of RIAs' risk-reduction estimates being attributed to populations living in areas that will already be attaining the respective NAAQS. This article explains the source of this inconsistency and provides a quantitative example based on the 2012 revision of the fine particulate matter (PM_{2.5}) primary NAAQS. This article also demonstrates how this inconsistency is amplified when criteria pollutant co-benefits are calculated in RIAs for non-NAAQS rules, using quantitative examples from the 2011 Mercury and Air Toxics Standards and the currently proposed Clean Power Plan.

KEY WORDS: Benefits; co-benefits; NAAQS; ozone; PM_{2.5}; regulatory impact analysis

1. BACKGROUND

When the primary particulate matter (PM_{2.5}) National Ambient Air Quality Standards (NAAQS) were first established in 1997 (one for annual average and one for daily average ambient PM_{2.5} concentrations), the principal basis for those standards was epidemiological evidence of positive statistical associations between ambient PM_{2.5} levels and adverse health effects, including premature death risk.

These reported associations, combined with a presumption that they represented a causal relationship, were also used to calculate quantitative public health risk estimates to supplement reasoning on setting the NAAQS. Quantitative risk analyses based on epidemiological evidence have continued to be a central feature of the review process for revisions of the PM_{2.5} NAAQS since then, and have also been a salient consideration in revisions of the NAAQS for ozone. This article focuses on a quantitative inconsistency that has emerged between the rationale that U.S. Environmental Protection Agency (EPA) Administrators use for setting a NAAQS when relying primarily on epidemiologically-based health risk evidence, and the estimates of public health benefits

*Address correspondence to Anne E. Smith, Senior Vice President, NERA Economic Consulting, 1255 23rd Street NW, Suite 600, Washington, DC 20037, USA; anne.smith@nera.com.

from those rules that EPA staff produces in its Regulatory Impact Analyses (RIAs).¹

2. THE RATIONALE FOR SETTING A PRIMARY NAAQS

The Clean Air Act requires EPA² to set the primary NAAQS for each criteria pollutant at levels that “are requisite to protect the public health” while “allowing an adequate margin of safety.”⁽¹⁾ This determination must be made without regard to the potential cost of meeting the standard,⁽²⁾ and legal rationales for choosing a NAAQS traditionally involved a balanced consideration of three attributes: (1) size of affected population, (2) severity of effect, and (3) certainty of effect.⁽³⁾ However, the evolution since 1997 towards greater reliance on epidemiological evidence in setting a NAAQS forced a shift in how the rationale could be constructed, particularly for PM_{2.5}. This was because the available epidemiological studies on several clearly adverse types of health effects (such as premature death) have not been able to identify a “threshold” or any other less sharp delineation of a point where the risk per unit increment of concentration appears to attenuate.³ This situation eliminates the first two of the three above-mentioned considerations that EPA had typically relied on in

NAAQS-setting rationales. That is, (1) the entire U.S. population is now implicated as at risk at every potential NAAQS level, and (2) the severity of effect can no longer be seen to be changing as lower potential NAAQS levels are considered. As a result, consideration (3)—uncertainty about the reliability of the epidemiologically estimated association—has become the only consideration remaining available to EPA for setting a primary NAAQS above zero that can be argued to be adequately protective of the public health as required by the statute.

This shift in the nature of the scientific evidence for setting a NAAQS was so profound that the U.S. Court of Appeals ruled that the setting of a NAAQS under these circumstances amounted to an unconstitutional delegation of legislative power to the Administrator unless she would first articulate an “intelligible principle” for how to draw that line.⁽⁶⁾ However, the Supreme Court overruled this finding,⁽⁷⁾ with the result being that since then EPA’s rationales for at least two of the NAAQS (i.e., PM_{2.5} and ozone) have largely emphasized identifying a level at which continuation of the nonthreshold statistical health associations becomes too uncertain to indicate an actionable level of further public health risk.

The preamble for the 2012 PM_{2.5} NAAQS decision provides an example. It starts by noting that setting a standard based on epidemiological studies that cannot identify a population threshold requires a decision-making approach that “includes consideration of how to weigh the uncertainties in the reported associations across the distributions of PM_{2.5} concentrations in the studies and the uncertainties in quantitative estimates of risk, in the context of the entire body of evidence before the Agency.”⁽⁸⁾ Later, the document states, “[i]n reaching decisions on alternative standard levels to propose, the Administrator judged that it was most appropriate to examine where the evidence of associations observed in the epidemiological studies was strongest and, conversely, where she had appreciably less confidence in the associations observed in the epidemiological studies,”⁽⁹⁾ and after a detailed discussion of the epidemiological information states, “[t]he Administrator views this information as helpful in guiding her determination as to *where her confidence in the magnitude and significance of the associations is reduced to such a degree* [emphasis added] that a standard set at a lower level would not be warranted to provide requisite protection that is neither more nor

¹ A separate point of discussion regarding the quantitative risk estimates is whether the full body of scientific evidence is sufficient to give confidence that these epidemiological associations reflect a causal relationship between the pollutant and health endpoint studied. This article does not attempt to add to that discussion.

² Formally, under the Clean Air Act, the responsibility for deciding where to set a NAAQS is vested specifically in the Administrator. Throughout this article, when I use the term “EPA,” I am referring to the EPA Administrator. When not referring to the Administrator specifically, I use the terms “EPA staff” or “Agency.”

³ EPA staff and others often refer to this as a “threshold” for effects, but the phenomenon being sought to help identify a protective level for a particular adverse effect need not be a point of sharp delineation where all population-wide effects end. Even evidence of diminishment in the slope of the association would be helpful but has not been consistently found. Lack of detection of such a diminishment in an association, even if the detected association is causal at relatively high concentrations, does not mean one does not exist at some relatively low concentration (see Ref. 4, p. 382). This is because the epidemiological techniques available have very limited ability to reliably discern the shape of a potential concentration-response relationship, and thus to inform the question of where or whether the association may end. It is theoretically established that unavoidable inaccuracies in measurement of an explanatory variable (e.g., pollutant exposure) make it difficult to statistically detect a threshold or other non-linearity at low concentrations even when it actually exists.⁽⁵⁾

less than needed to provide an adequate margin of safety.”⁽¹⁰⁾

Similarly, in 2008 EPA used lack of confidence in continuation of the epidemiological associations to lower levels as its rationale for not setting the ozone NAAQS lower than 0.075 ppm despite clinical evidence in the record of health responses at yet lower concentrations. The ozone NAAQS preamble states: “A standard set at a level lower than 0.075 would only result in significant further public health protection if, in fact, there is a continuum of health risks in areas with 8-hour average O₃ concentrations that are well below the concentrations observed in the key controlled human exposure studies and if the reported associations observed in epidemiological studies are, in fact, causally related to O₃ at those lower levels. Based on the available evidence, the Administrator is not prepared to make these assumptions. Taking into account the uncertainties that remain in interpreting the evidence from available controlled human exposure and epidemiological studies at very low levels, the Administrator notes that *the likelihood of obtaining benefits to public health with a standard set below 0.075 ppm O₃ decreases* [emphasis added], while the likelihood of requiring reductions in ambient concentrations that go beyond those that are needed to protect public health increases.”⁽¹¹⁾ The U.S. Court of Appeals for the District of Columbia Circuit accepted this rationale and upheld the standard in 2013.⁽¹²⁾

Although the NAAQS rationales are not written to conform to the terminology of probability or expected values, readers with decision analytic or other risk analysis training would be inclined to interpret the above quotes as expressing subjective judgments about the probability that the health relationships apparent in statistical associations cease to exist at some point on the continuum of lower and lower ambient pollutant concentrations. A decision-analytic interpretation of the above statements might be as follows. In order for a selected NAAQS level to be deemed as requisite to protect the public health, EPA’s subjective probability that the relationship exists at and below the selected NAAQS level must, logically, be very nearly zero. (Indeed, the subjective probability of continued effects must fall to nearly zero at an ambient concentration somewhere *above* the selected NAAQS level. This is because the NAAQS needs to include at least some margin of safety, and thus must be set at least somewhat lower than the level where expected risk is deemed to

become too small to be considered a public health concern.)

3. THE RESULTING INCONSISTENCY IN BENEFITS ESTIMATES FOR A NAAQS

Thus, in setting NAAQS using epidemiological evidence, EPA has deemed quantitative estimates of health risks for concentrations below the NAAQS far less reliable and more inaccurate than the numerical precision with which they are reported. In essence, the NAAQS rationales give little or no weight to the subset of the quantitative risk estimates the Agency has placed in the record that have been calculated for pollutant concentrations below the selected NAAQS level. This lack of confidence in risk estimates from that below-the-NAAQS range does not, however, make its way into the RIAs that accompany the release of the final rules.

RIAs are documents that report on the benefits and costs of each major new regulation, such as a revised NAAQS. Federal regulatory agencies are required to prepare RIAs by Executive Order of the President.^(13,14) Although this requirement is unrelated to the legal requirements of the statute that motivates the regulation (such as the Clean Air Act in the case of air pollutant regulations), EPA’s RIAs for air regulations adopt the same epidemiologically-based method of quantifying health risks used when deliberating where to set the NAAQS.⁴ The consistency ends there, however. At the same time that EPA is setting NAAQS at levels where it has minimal confidence that the public health is affected at lower concentrations, the Agency’s RIAs are giving the same weight to risks calculated for population exposures *below* the NAAQS level as they do to risks calculated for population exposures *above* the NAAQS level. That is, RIAs assume elevated hazards exist with 100% certainty for all ambient pollutant exposure levels down to a zero concentration, inconsistent with EPA’s judgments (formed when assessing those pollutants’ hazards), which imply nearly 0% certainty. EPA does not explain or try to justify why data that are too uncertain to use in the NAAQS preamble context are certain enough to use in the RIA context. Although different certainty standards may be

⁴While the “benefits” in an RIA are stated as a monetary value to be compared to the regulation’s costs, they are directly derived from quantitative estimates of physical health effects.

justified in the context of decisions with different consequences, the contexts of a NAAQS preamble and that NAAQS's RIA are not very different at all.

This inconsistency was not always as pronounced as it is now. Until 2009, risk reduction calculations used in air RIAs were at least truncated for pollutant concentrations below the lowest concentration level measured in the epidemiological study being used to make the risk estimates. RIAs would still include risk reduction estimates below the prevailing NAAQS level, as NAAQS levels have always been set at levels above the lowest levels measured in the studies. However, from 2009 onwards, RIAs eliminated even that truncation, which resulted in a sudden and large increase in RIA benefits estimates for PM_{2.5} and ozone pollutant changes.⁽¹⁵⁾ The fact that RIAs calculate health risk reductions below the NAAQS, and now down to zero, is widely known but the following examples quantify the extent to which this practice results in upward-biased risk and benefits estimates. This author recommends that EPA staff more clearly communicate subjective epistemic uncertainty in its RIA benefits estimates. More specifically, the author recommends that the Agency's central estimates of benefits in its RIA be made consistent with the science-policy judgments EPA makes in setting the criteria pollutant standards. This recommendation is in line with the need for more effective sensitivity analysis capabilities for health risk analyses, as described by Smith and Gans.⁽¹⁶⁾

4. OVERSTATEMENT OF EXPECTED BENEFITS OF THE 2012 PM_{2.5} PRIMARY NAAQS REVISION

The implications of this inconsistency are illustrated using as an example the RIA for the 2012 PM NAAQS rulemaking.⁽¹⁷⁾ In this rulemaking, the annual primary standard for PM_{2.5} was tightened from an annual average of 15 to 12 $\mu\text{g}/\text{m}^3$. In the associated RIA, a range of 460 to 1,000 fewer premature deaths per year was estimated from tightening the standard to 12 $\mu\text{g}/\text{m}^3$. This range was derived by applying two different concentration-response functions to the Agency's standard risk calculation formula. The concentration-response coefficient for the lower end of the range was derived using a coefficient from Krewski *et al.*,⁽¹⁸⁾ and the upper end of the range was derived using a coefficient from Lepeule *et al.*⁽¹⁹⁾ A yet wider range of uncertainty in potential mortality risk reductions exists, as explained in Ref. 16, but the following discussion addresses only how

the Agency's own range changes when the assumptions of the RIA's risk analysis are made consistent with EPA's reasoning when choosing how stringently to set the standard.

Calculations were performed using EPA's BenMAP model, which is a PC-based program that enables users to compute health risks associated with criteria pollutants using the standard formulas that EPA uses in its own RIAs, and using EPA's or their own input files and other assumptions.⁽²⁰⁾ The air quality input files that had been used for this RIA's calculations were obtained from EPA staff. After confirming that BenMAP does indeed replicate the mortality reduction estimates reported in the RIA using those data, the same files were then used to assess the portion of the RIA's premature mortality estimates that are associated with the linear, no-threshold assumption that assumes that the risk relationship continues to exist below the selected NAAQS. This analysis found that 70% of the benefits for the standard of 12 $\mu\text{g}/\text{m}^3$ were due to reductions in PM_{2.5} from baseline levels that were already attaining (i.e., lower than) that standard.

Given that the choice of a NAAQS level of 12 $\mu\text{g}/\text{m}^3$ meant that EPA assigned too little confidence in the continuation of health effects below 12 $\mu\text{g}/\text{m}^3$ to warrant setting the NAAQS at a lower level, standard decision analysis would assign negligible probability to calculations of benefits from reductions that would be occurring from levels below that NAAQS. That is, the *expected* values for 70% of the Agency's risk calculations should be approximately zero. When a threshold is assumed at 12 $\mu\text{g}/\text{m}^3$, BenMAP calculates that the expected risk reduction of that NAAQS would be 138 to 313 fewer premature deaths per year, considerably lower than the 460 to 1,000 deaths reported in the RIA. (Dollar values of the benefits also fall proportionally.)

As noted above, the rationale for the NAAQS arguably implies that some of the benefits derived from locations with concentrations just above 12 $\mu\text{g}/\text{m}^3$ also should be given less than 100% weight because of EPA's assurance that exposures to annual average concentrations of 12 $\mu\text{g}/\text{m}^3$ are protective *with an adequate margin of safety*. EPA rarely if ever defines the magnitude of its margin of safety quantitatively. However, ranges for its magnitude could be tested with sensitivity analyses. If, for example, the margin of safety is taken to be about 1 $\mu\text{g}/\text{m}^3$, and a threshold is assumed in the risk relationship 13 $\mu\text{g}/\text{m}^3$, BenMAP calculates the expected benefits associated with the selected NAAQS of 12 $\mu\text{g}/\text{m}^3$ are

Table I. Estimates of Avoided Premature Deaths in 2020 for the $12 \mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$ NAAQS: RIA Assumptions Compared to Alternative Views Suggested by EPA's Rationale for that NAAQS

Confidence Category (baseline $\text{PM}_{2.5}$ concentration)	NAAQS-Based Risk Reduction Estimate	RIA-Based Risk Reduction Estimate (% of total)
Already attaining ($\leq 12 \mu\text{g}/\text{m}^3$)	Approximately 0	318 (70%)
Not attaining/in margin (e.g., >12 to $13 \mu\text{g}/\text{m}^3$)	0–117	117 (26%)
Not attaining/above margin (e.g., $>13 \mu\text{g}/\text{m}^3$)	21	21 (5%)
Confidence weighted		
Total risk reduction estimate	21–117	456

only 21 to 48 deaths, less than 5% of the RIA's estimate of benefits from that standard.

Whether the particular assumptions in this analysis about where the concentration-response relationship begins to exist are reasonable or should be refined, its point is that the RIA's benefits estimates are very sensitive in the downward direction to expressions of declining confidence in continuation of the association at or just above the selected NAAQS level. The result is that the RIA benefits are substantially overstated compared to those that would more appropriately reflect the subjective weights expressed by EPA in its rationale for setting the standard at $12 \mu\text{g}/\text{m}^3$. Table I contrasts the results of the RIA with judgments about confidence in those risk calculations that one might infer from the NAAQS rationale, and illustrates one way that RIAs could be enhanced to better communicate to the public the implications of the judgments made in setting the NAAQS for the rule's benefits estimates.

For simplicity, Table I summarizes only the lower-bound benefits estimate of 460 deaths (which BenMAP calculates more precisely as 456 deaths).⁵ In this table, the risk estimates are divided into three "confidence categories." The lowest confidence category is for risk reductions attributed to populations already residing in areas of attainment (i.e., with annual average concentrations less than $12 \mu\text{g}/\text{m}^3$). Given the NAAQS rationale, the public health risk is *de minimis*, and in weighted terms, would be nearly zero, while in the RIA, which gives 100% weight to all such risk calculations, benefits equal to about 318 deaths per year are assigned. The middle confidence category is for risk reductions attributed to populations in areas that are just above the NAAQS before the standard is implemented, but close



Fig. 1. Areas projected in the $\text{PM}_{2.5}$ NAAQS RIA to experience health benefits under the selected NAAQS of $12 \mu\text{g}/\text{m}^3$ (456–1,033 avoided premature deaths, rounded to nearest death).

enough to attainment that they might be viewed as being within the (undefined) "margin of safety." (For purposes of constructing the illustrative tabular summary, the margin of safety is assumed to be about $1 \mu\text{g}/\text{m}^3$, meaning that less than the NAAQS-based weights would be declining or perhaps nearly zero even within this category of baseline exposures.) To reflect risk estimates that fall in this category, the NAAQS-based risk reduction estimate is listed as being somewhere between 0 and 117, while the RIA would assign it 117 with 100% confidence.

Finally, there are 21 avoided premature deaths estimated for populations living in areas well above the NAAQS. For this third category, the RIA's benefits estimates can be considered consistent with the NAAQS-based rationale. Note that for the $\text{PM}_{2.5}$ NAAQS RIA, this category accounts for only about 5% of the total RIA benefits estimate. It is recommended that RIAs provide their benefits estimates for criteria pollutants in a format such as Table I, and more explicitly provide weighted benefits estimates for confidence categories that are defined with respect to the NAAQS level.

Geographical representation of where these health benefits are expected to occur is also interesting to explore. The $\text{PM}_{2.5}$ NAAQS RIA calculated reductions in premature mortality only for areas that

⁵The upper-bound risk estimates would fall into the three rows in the table in the same proportions as seen for the lower-bound estimates in the table.

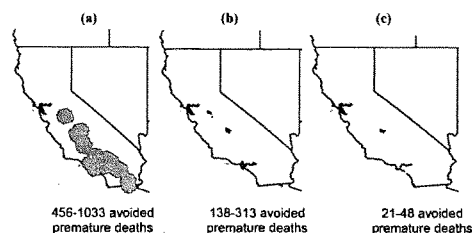


Fig. 2. Sensitivity analysis of areas projected to experience health benefits under the 12 $\mu\text{g}/\text{m}^3$ NAAQS: (a) assuming benefits for all baseline $\text{PM}_{2.5}$ levels; (b) assuming risks exist only if baseline $\text{PM}_{2.5}$ is above 12 $\mu\text{g}/\text{m}^3$; (c) assuming risks exist only if baseline $\text{PM}_{2.5}$ exceeds the selected standard by more than 1 $\mu\text{g}/\text{m}^3$.

were within 50 km of a monitor that the RIA's air quality analysis projected would not attain the new standard under baseline conditions. Fig. 1 shows the locations in which the RIA's estimate of 460–1,000 avoided premature deaths occur. It is notable that all of those benefits occur in California. Fig. 2 zooms in on California to show: (a) the areas in Fig. 1 where benefits are attributed to reductions in $\text{PM}_{2.5}$ at any level (i.e., showing the same areas as in Fig. 1); (b) the more limited areas projected to experience a health benefit when only reductions in $\text{PM}_{2.5}$ that start above the 12 $\mu\text{g}/\text{m}^3$ NAAQS are considered; and (c) the even more limited areas if a 1 $\mu\text{g}/\text{m}^3$ margin of safety is assumed to be associated with the selected standard of 12 $\mu\text{g}/\text{m}^3$. That is, Fig. 2(c) only gives weight to risks below 13 $\mu\text{g}/\text{m}^3$. Both Figs. 2(b) and (c) reveal a far smaller area of at-risk populations than assumed in the RIA (i.e., than in Fig. 2(a)).

This example from the $\text{PM}_{2.5}$ NAAQS RIA brings to light another important uncertainty in its mortality benefits. All of the benefits estimates for the NAAQS of 12 $\mu\text{g}/\text{m}^3$ are based on $\text{PM}_{2.5}$ changes in California. The risk calculations for changes in $\text{PM}_{2.5}$ in California are performed using relative risk estimates derived from the entire United States, yet the epidemiological evidence that an association between $\text{PM}_{2.5}$ and all-cause mortality risk exists in California is tenuous.⁶ Hence all of the above risk estimates might actually be zero, even if one does

not wish to discount risks in areas already below the NAAQS. In other words, the much tighter 2012 $\text{PM}_{2.5}$ NAAQS was set on the basis of projected mortality reductions that occur only in a part of the United States where the evidence of heightened mortality risk from $\text{PM}_{2.5}$ appears to be weaker than in other parts of the United States.

5. OVERSTATEMENT OF CRITERIA POLLUTANT CO-BENEFITS IN NON-NAAQS RULEMAKINGS

As explained in Ref. 15, epidemiologically-based estimates of co-benefits from coincidental reductions of ambient criteria pollutants (especially $\text{PM}_{2.5}$) have also driven statements about regulatory benefits for a majority of non-NAAQS air rulemakings in recent years. The upward bias in RIA benefits estimates becomes even more pronounced when co-benefits are calculated from coincidental criteria pollutant reductions under regulations that do not relate to the NAAQS or regulations to help attain a NAAQS. Prominent examples are the RIAs for the Mercury and Air Toxics Standards (MATS) for electricity-generating units promulgated in December 2011⁽²¹⁾ and the Clean Power Plan (CPP) proposed in June 2014.⁽²²⁾

The MATS RIA projected $\text{PM}_{2.5}$ co-benefits in the hundreds of billions of dollars per year, based almost entirely on estimates of reduced premature mortality from reductions in $\text{PM}_{2.5}$: 4,200 to 11,000 deaths per year. The reductions in $\text{PM}_{2.5}$ in the MATS RIA are projected to occur when generating units are forced to install controls to reduce acid gas emissions, which will also reduce SO_2 emissions, a precursor to ambient $\text{PM}_{2.5}$ formation. A figure in the MATS RIA reveals that over 99% of those projected benefits are projected to occur in areas where the $\text{PM}_{2.5}$ levels will already be below the $\text{PM}_{2.5}$ NAAQS

⁶The $\text{PM}_{2.5}$ RIA⁽¹⁷⁾ cites seven California-specific $\text{PM}_{2.5}$ cohort studies with all-cause risk estimates and notes that four have insignificant associations while three have larger coefficients (Ref. 17 at p. 5, A-13). However, one of the three positive findings cited (i.e., Ostro *et al.*, 2010) was erroneous, according to an erratum published the following year (Ostro *et al.*, 2011), and the corrected estimate of association was found to be insignificant. The remaining two positive findings cited were from the same cohort, one estimate being just an update of the other. Thus, the evidence for an all-cause mortality association in California alone consists of five null findings and one cohort with a positive finding.

of $12 \mu\text{g}/\text{m}^3$ (Figure 5–15 on p. 5–102 of Ref. 21). If the MATS rule's co-benefits are calculated probabilistically, accounting for the very low subjective probability that EPA assigned to the existence of the $\text{PM}_{2.5}$ -health effects relationships at levels below the NAAQS, the resulting estimate of expected benefits from the MATS rule becomes nearly zero.

The fraction of the $\text{PM}_{2.5}$ co-benefits calculated below the NAAQS is much higher in the MATS RIA than the already high level of 70% that we have found for the benefits calculated for the $\text{PM}_{2.5}$ NAAQS rule itself. This is due to the fact that benefits in the RIA for the NAAQS rule were calculated only in areas within 50 km of a monitor that was projected to be out of attainment. By letting projected nonattainment constrain the geographical area over which benefits will be calculated, one ensures that a larger fraction of the resulting benefits will indeed be from areas above the NAAQS. However, when co-benefits of some other rule are assessed using $\text{PM}_{2.5}$ risk relationships, no such constraint is applied. In the MATS rule, co-benefits were calculated across the entire nation, and furthermore, the units where acid gas controls were incremental to baseline controls were more likely to be in areas already attaining the NAAQS. As a result, nearly all of the $\text{PM}_{2.5}$ co-benefits are projected in NAAQS-attaining areas. For these reasons, the bias in $\text{PM}_{2.5}$ co-benefits estimates in RIAs for non- $\text{PM}_{2.5}$ rulemakings will tend to be much greater than the bias in the direct benefits estimates in RIAs for $\text{PM}_{2.5}$ regulations.

The same magnitude of overstatement of co-benefits is apparent in the RIA for the proposed CPP RIA, which includes co-benefits for both $\text{PM}_{2.5}$ and ozone. In the CPP RIA (focusing, for simplicity, on its Option 1 with state-level implementation) the $\text{PM}_{2.5}$ co-benefits of the rule are estimated to be up to 4,100 deaths in 2020 and up to 6,200 deaths in 2030, and the ozone co-benefits are estimated to be up to 170 and 440 in those respective years (Tables 4–16 through 4–18 on pp. 4–34 to 4–36 of Ref. 22). Unlike the MATS RIA, the CPP RIA does not provide any information on the fraction of these co-benefits that are calculated for areas already attaining those two NAAQS, but they can be inferred by replicating the co-benefits calculations from other data in the RIA.⁷ Recalling that the $\text{PM}_{2.5}$ NAAQS RIA indicates that only California will be exceeding

the $\text{PM}_{2.5}$ NAAQS in 2020, only California-based $\text{PM}_{2.5}$ co-benefits estimates could be associated with exposures in the above-the-NAAQS category: less than 1% of the CPP RIA's $\text{PM}_{2.5}$ co-benefits are attributable to changes in emissions in California in 2020. Furthermore, the $\text{PM}_{2.5}$ NAAQS is supposed to be fully attained by 2020, so even that sliver of the $\text{PM}_{2.5}$ co-benefits attributable to California are supposedly in an attainment area. Although California is not projected to attain the ozone NAAQS before 2030, less than 0.5% of the ozone-related co-benefits are associated with changes in ozone precursors in California. Thus, in the CPP RIA as well in the MATS RIA, more than 99% of the co-benefits would be discounted if health risks below the NAAQS are assigned a much lower probability (or confidence weight) than risks above the NAAQS.

6. CONCLUSION

In conclusion, we find that a large majority of the Agency's estimated health benefit from the 2012 $\text{PM}_{2.5}$ NAAQS are attributable to reductions of $\text{PM}_{2.5}$ in areas that are already in attainment of the $\text{PM}_{2.5}$ NAAQS. RIA calculations of risk reduction in areas already attaining the new NAAQS are given the same weight (i.e., subjective confidence level) as projected benefits from areas that would be exceeding the NAAQS. These RIA calculations are based on assumptions that are inconsistent with the rationale for that NAAQS. The above sensitivity analyses show that this causes RIAs' benefits estimates to be much larger than estimates of the expected benefits that can be reasonably inferred from EPA's NAAQS-setting rationale. The overstatement becomes nearly 100% for co-benefits from criteria pollutants in RIAs for non-NAAQS regulations, such as the MATS rule and the proposed CPP rule. RIAs should be written to reflect consistency with EPA's NAAQS policy judgments. Precise confidence weights will likely never be articulated, but this article has shown that the quantitative importance of such policy judgments for benefits estimates can be communicated to RIA readers in simple formats. It is the opinion of this author that such quantitative disclosure is important to maintaining credibility and trust in the Agency's RIAs.

ACKNOWLEDGMENTS

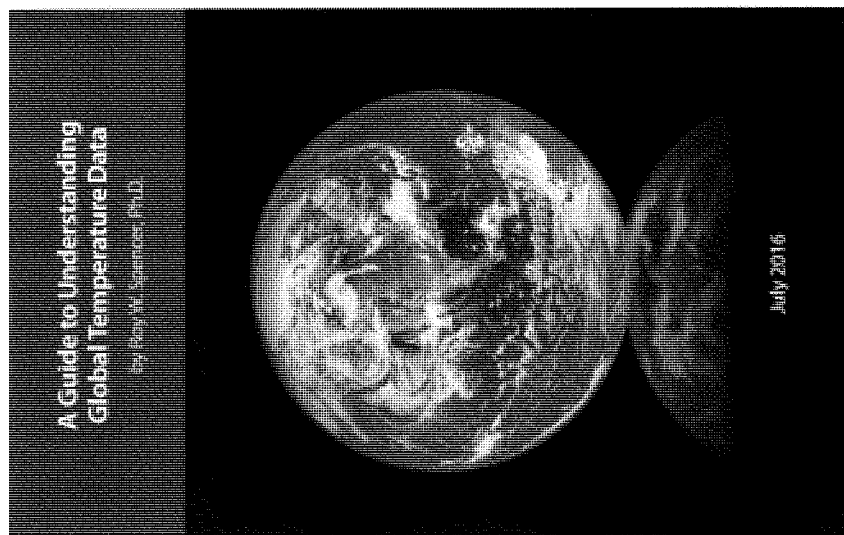
This work was conducted with funding from the Electric Power Research Institute. The author thanks Ms. Reshma Patel for her analytical support

⁷This involves using data on emissions reductions of the $\text{PM}_{2.5}$ and ozone precursor emissions in the RIA's Table 4–10, and multiplying them by the incidence-per-ton estimates in Tables 4A–5 through 4A–7.

in preparing the analyses used in this article. The author also thanks three anonymous reviewers for their comments and suggestions. Any errors remain the author's sole responsibility.

REFERENCES

1. Section 109 (b)(1). Clean Air Act: 42 USC §7409.
2. *Whitman v. American Trucking Associations*, 531 U.S. 473–476 (2001).
3. *Lead Industries Association Inc v. Environmental Protection Agency*, 647 F.2d 1130 (1980).
4. Smith AE. Response to commentary by Fann *et al.* on “Enhancing the characterization of epistemic uncertainties in $PM_{2.5}$ risk analyses.” *Risk Analysis*, 2015; 35(3):381–384.
5. Brauer M, Brumm J, Vedal S, Petkau AJ. Exposure misclassification and threshold concentrations in time series analyses of air pollution health effects. *Risk Analysis*, 2002; 22(5):1183–1193.
6. *American Trucking Associations v. EPA*, 175 F. 3d 1027, 1034–1037 (D.C. Cir. 1999), rehearing granted in part and denied in part, 195 F. 3d 4 (D.C. Cir. 1999), affirmed in part and reversed in part, *Whitman v. American Trucking Associations*, 531 U.S. 457 (2001).
7. *Whitman v. American Trucking Associations*, 531 U.S. 473–476 (2001).
8. 78 Fed. Reg. 3086 at 3098.
9. 78 Fed. Reg. 3086 at 3139.
10. 78 Fed. Reg. 3086 at 3161.
11. 76 Fed. Reg. 16436 at 16483.
12. *Mississippi v. EPA*, 744 F.3d 1334 (D.C. Cir. 2013).
13. Executive Order 12866. 1993. “Regulatory Planning and Review.” 58 Fed. Reg. 51735, October 4. Available at: www.whitehouse.gov/omb/inforeg/eo12866.pdf.
14. Executive Order 13563. 2011. “Improving Regulation and Regulatory Review.” 76 Fed. Reg. 3821, January 18. Available at: http://www.regulations.gov/exchange/sites/default/files/doc_files/President%27s%20Executive%20Order%2013563_0.pdf.
15. Smith, AE. An evaluation of the $PM_{2.5}$ health benefits estimates in regulatory impact analyses for recent air regulations. Report prepared for the Utility Air Regulatory Group, December 2011, at p. 24. Available at: http://www.nera.com/content/dam/nera/publications/archive2/PUB_Smith_Ozone_NAAQS_0711.pdf.
16. Smith AE, Gans W. Enhancing the characterization of epistemic uncertainties in $PM_{2.5}$ risk analyses. *Risk Analysis*, 2015; 35(3):361–78.
17. EPA. Regulatory impact analysis for the final revisions to the National Ambient Air Quality Standards for particulate matter, EPA-452/R-12-003, December, 2012.
18. Krewski D, Jerrett M, Burnett RT, Ma R, Hughes E, Shi Y, Turner MC, Pope CA 3rd, Thurston G, Calle EE, Thun MJ, Beckerman B, DeLuca P, Finkelstein N, Ito K, Moore DK, Newbold KB, Ramsay T, Ross Z, Shin H, Tempalski B. Extended follow-up and spatial analysis of the American Cancer Society Study linking particulate air pollution and mortality. Research Report Health Effects Institute, 2009; 140:5–114.
19. Lepeule J, Laden F, Dockery D, Schwartz J. Chronic exposure to fine particles and mortality: An extended follow-up of the Harvard Six Cities Study from 1974 to 2009. *Environmental Health Perspectives*, 2012; 120(1):81–95.
20. BenMAP version 4.0.67. Available at <http://www.epa.gov/air/benmap/download.html>.
21. EPA. Regulatory impact analysis for the final mercury and air toxics standards, EPA-452/R-11-011, December 2011.
22. EPA. Regulatory impact analysis for the proposed carbon pollution guidelines for existing power plants and emission standards for modified and reconstructed power plants, EPA-542/R-14-002, June 2014.



About the Author



Roy Warren Spencer, Ph.D., is a meteorologist, principal research scientist at the University of Alabama in Huntsville (UAH), and the U.S. Science Team leader for the Advanced Microwave Scanning Radiometer (AMSR-E) on NASA's Aqua satellite. Spencer also served as senior scientist for climate studies at NASA's Marshall Space Flight Center and is known for his satellite-based temperature monitoring work, for which he was awarded the American Meteorological Society's Special Award.

Spencer received a B.S. in atmospheric sciences from the University of Michigan in 1978 and his M.S. and Ph.D. in meteorology from the University of Wisconsin-Madison in 1980 and 1982. He then worked for two years as a research scientist in the Space Science and Engineering Center at the University of Wisconsin-Madison, and later joined NASA's Marshall Space Flight Center as a visiting scientist in 1984. After leaving NASA in 2001, Spencer attained his current position at UAH and continued his work for NASA's Aqua satellite, a position he has held since 1994.

Spencer has been a member of several science teams: the Tropical Rainfall Measuring Mission (TRMM) Space Station Accommodations Analysis Study Team, Science Steering Group for TRMM, TOVS Pathfinder Working Group, NASA Headquarters Earth Science and Applications Advisory Subcommittee, and two National Research Council (NRC) study panels.

He is also on the board of advisors of the Cornwall Alliance for the Stewardship of Creation. Spencer's research work is funded by NASA, NOAA, DOE and the DOT.

Introduction

When we measure temperature in our backyard, we really aren't that concerned if the thermometer we use is off by a degree or two. Since most people live where the temperature fluctuates by many degrees every day, and the seasonal swing in temperatures can be 80 F or more, a couple of degrees doesn't matter too much.

But in the case of global warming, one or two degrees is the entire change scientists are trying to measure over a period of 50 to 100 years. Since none of our temperature monitoring systems was designed to measure such a small change over such a long period of time, there is much disagreement over exactly how much warming has or will occur.

Whether we use thermometers, weather balloons or Earth-orbiting satellites, the measurements must be adjusted for known sources of error. This is difficult if not impossible to do accurately. As a result, different scientists come up with different global warming trends—or no warming trend at all.

So, it should come as no surprise that the science of global warming is not quite as certain as the media and politicians make it out to be.

Increasingly, the "science" of global warming is being based upon theories of what might happen, not on what is being observed to happen. And the observations are increasingly at odds with the theory. The United Nations Intergovernmental Panel on Climate Change (IPCC) relies upon theoretical climate models which predict about 2 C (3.8 F) of warming by the end of this century, due primarily to carbon dioxide emissions resulting from our burning of fossil fuels. The IPCC claims that this rate of warming could be catastrophic for some forms of life.

But is the Earth really warming as rapidly as the IPCC says? And, is that warming entirely the fault of humans?

In this paper I will answer some basic questions about global temperature data in particular, climate change in general, and what it all means for the debate over energy policy. The following questions are some of the more frequently ones asked of me over the last 20 years I have been performing climate change research under U.S. government funding.

These questions include:

- 1) Does an increasing CO₂ level mean there will be higher global temperatures?
- 2) Can global temperatures go up naturally, even without rising CO₂ levels?
- 3) How are temperature data adjusted?

2

- 4) Are global temperatures really going up? If so, by how much?
- 5) Is warming enough to be concerned about? Is warming necessarily a bad thing?
- 6) Could the warming be both natural and human-caused?
- 7) Why would the climate models produce too much warming?
- 8) What is climate sensitivity?
- 9) Don't 97 percent of climate researchers agree that global warming is a serious man-made problem?
- 10) Haven't ocean temperatures been going up, too?
- 11) What does it mean when we hear "the highest temperature on record"?
- 12) Is there a difference between weather and climate?
- 13) Why would climate science be biased? Isn't global warming research immune from politics?

From the answers to these questions that follow, it should be clear that the science of global warming is far from settled.

Uncertainties in the adjustments to our global temperature datasets, the small amount of warming those datasets have measured compared to what climate models expect, and uncertainties over the possible role of Mother Nature in recent warming, all combine to make climate change beliefs as much faith-based as science-based.

Until climate science is funded independent of desired energy policy outcomes, we can continue to expect climate research results to be heavily biased in the direction of catastrophic outcomes.

1) Does an increasing CO₂ level mean there will be higher global temperatures?

Probably, yes. As we burn fossil fuels (primarily petroleum, coal, and natural gas) to meet most of humanity's energy needs, carbon dioxide (CO₂) is unavoidably released. Its concentration has risen from about 270 parts per million (ppm) before the industrial revolution to about 400 ppm in 2015. It has been monitored accurately since 1959 at Mauna Loa, Hawaii, and at several other locations around the world in later years. All of the measurements tell a consistent story: CO₂ levels in the atmosphere are slowly increasing.

The following plot of the CO₂ increase at Mauna Loa shows that even though the increase seems substantial in relative terms (left panel), the amount of CO₂ in the atmosphere is so small in absolute terms that the change in concentration is not even visible in a plot (right panel) where percent, rather than parts per million, is used for the vertical scale.

3

Mauna Loa Carbon Dioxide Measurements, 1959 - 2015

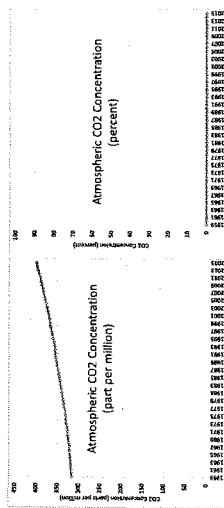


Fig. 1. The atmospheric concentration of carbon dioxide at Mauna Loa, HI between 1959 and 2015, in parts per million (left panel), and as a percent of the atmosphere (right panel).

In fact, most people are surprised to learn that humans have so far contributed only about 1 molecule of CO_2 to every 10,000 molecules of air over the last 60 years. About 50 percent of all we emit is absorbed by nature since CO_2 is necessary for photosynthesis and for life to exist on Earth.

So, how can such a minor atmospheric constituent (technically, a "trace gas") have such a large predicted impact on global temperatures? To answer that question, we must briefly address what causes the temperature (of anything) to change.

The temperature of anything you can think of can be increased in one of two ways: (1) by adding more energy (e.g., turn up the stove top to warm a pot of water; turn up the furnace in your house); or (2) by reducing energy loss (e.g., put a lid on the uncovered pot of water as it is heated; add insulation to your walls).

For the Earth's climate system, the energy input is sunlight, while the energy loss is through infrared (heat) radiation emitted by the surface and atmosphere to the cold depths of outer space. Infrared radiation is the radiant heat you feel at a distance from a fire, and is emitted by all solid objects and by some gases in the atmosphere.

Carbon dioxide is a so-called "greenhouse gas," an admittedly misleading name for the gases which are good absorbers and emitters of infrared (IR) radiation. Water vapor is by far the most important greenhouse gas, while CO_2 and methane have lesser influences.

In the case of global warming theory, the extra CO_2 we have added to the atmosphere is believed to have reduced the rate at which the Earth loses infrared radiation to space by about 1 percent, based upon theoretical calculations backed up by laboratory measurements. It's like covering the pot of water on the stove slightly more with a lid, or adding a little more insulation to the walls of a house.

4

This human-caused 'radiative forcing' (an imposed imbalance between the energy flows in and out of the climate system) is what is believed to cause global warming, and associated climate change. There are other gases involved in radiative forcing estimates, such as methane and chlorofluorocarbons, but by far most of the effect is from increasing carbon dioxide.

The science supporting some warming effect of more CO_2 in the atmosphere is reasonably sound; what isn't well known is just *how much* of a temperature rise will result. This uncertainty is tied up in the holy grail of *climate sensitivity*, which I will address later.

For the time being, suffice it to say that more CO_2 in the atmosphere should cause some warming, but the amount of warming is much more uncertain than the public has been led to believe.

It should be noted that most of what you hear regarding expected global warming and climate change originates from a United Nations-sponsored organization of scientists and policy experts called the Intergovernmental Panel on Climate Change (IPCC). The UN IPCC releases new reports every few years summarizing the state of climate science, and surveys the results of climate models run in many different countries. The IPCC was formed and is still guided with considerable political influence from a variety of world governments, which should be kept in mind when its official views on climate change are being examined. Also, a number of global warming scientists who were originally involved in the IPCC process have either not been invited to continue their participation, or have resigned in protest of the IPCC's biased treatment of the science.

2) Can global temperatures go up naturally, even without rising CO_2 levels?

This is a fascinating question because of the wholesale change in scientific attitudes over the years in the climate research community. Forty years ago, climate researchers mostly studied natural sources of climate change, including warming and cooling episodes in our past. It was widely accepted that climate changes naturally.

Now, however, a newer generation of younger researchers equate any "warming" with "human-caused catastrophic warming." The culture of climate research has fundamentally shifted to a new way of viewing the world. Some suggest this new view is a result of pressure from government science funders.

Natural fluctuations in the climate system can easily rival the human influence. For example, if there is a small change in global-average cloud cover, more or less sunlight will reach the Earth's surface, leading to global warming or cooling. While we know from satellite measurements that such natural cloud fluctuations occur on a month-to-month basis, the possibility that such a thing could happen over an extended period of time, say several decades, is much more controversial. But I believe it is indeed possible, and might help explain historic climate change events. While fluctuations in the total output of the sun are too small to appreciably impact climate change (about 0.1 percent over the 11-year solar cycle), there are a number of theories of how indirect solar effects such as sunspots could change total cloudiness on the Earth and cause climate change. These theories remain controversial.

5

Also, the oceans are a potential source of natural climate change, due to the deep ocean being much colder than the near-surface waters (even the tropical oceans are about 40 F over most of their depth, see Fig. 2). There is continuous vertical mixing of the ocean which cools the surface and warms the deep ocean. But that rate of mixing is not always the same, and any change in the naturally occurring rate of exchange between warm surface waters and cold deep waters can cause global warming or cooling. These changes can occur over a period of centuries, so any small changes in the rate of overturning can cause the climate change over long periods of time.

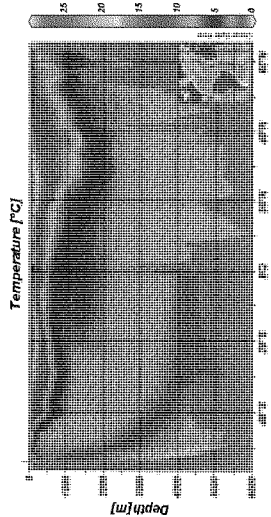


Fig. 2. North-south vertical cross section of ocean temperature with depth in the Atlantic Ocean, showing that over half of the ocean depth is colder than 40 F (about 5 C on the color scale), even in the tropics.

For example, changes in overturning happen during naturally occurring El Niño events when warm water builds up at the surface, and also during La Niña when more cold deep water upwells to the surface.

Various scientific methods are used to measure historic climate events, such as ice core data, tree rings, pollen in lake beds, and stalactites in caves. These indirect (proxy) measurements of temperature suggest that there have been natural warming and cooling events over the last 2,000 years, as shown in Fig. 3. The Medieval Warm Period (around 1000 A.D.) and Roman Warm Period (around 0 A.D.) might well have been, on average, just as warm as today, and was generally considered beneficial for humanity. The Little Ice Age occurred more recently, around 1300 to the mid-1800s, and was bad for humans.

Temperature Reconstruction for N. Hemisphere, 1 - 2000 AD Shows Modern Warm Period Not Exceptional

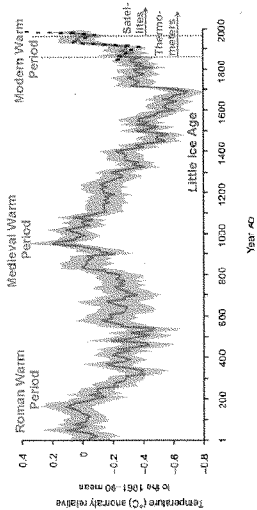


Figure 3. Estimates of Northern Hemisphere average temperature over the last 2,000 years. Note that most centuries experienced natural episodes of warming or cooling.

Note also from this chart that our actual measurements of temperature (e.g. thermometers, satellites) have been developed during a period when it was already warming, as we came out of the Little Ice Age.

We do not know with any level of certainty what caused these natural climate variations. A few scientists have even tried to erase it from the historical record with the famous 'hockey stick' graph of global temperatures estimated from one analysis of tree ring data.

I believe that long-term natural cycles in the climate system would most likely be caused by changes in ocean circulation, which can have time scales of many centuries, rather than in atmospheric circulation which are relatively short lived. How could such changes occur? The answer is something scientists call 'chaos'.

In complex systems like our atmosphere and ocean, there can be changes which appear for no apparent reason other than just because that's the way the system works. This chaotic feature of nonlinear dynamical systems has been known for over 50 years. It is what makes weather difficult to predict weeks in advance, and it would make the ocean circulation difficult to predict centuries in advance.

El Niño and La Niña are two examples of climate chaos. In some years, the climate system goes into a warmer, El Niño state, as was the case in 2015-16. In other years, it goes into a cooler La Niña state. In a sense, these represent two different choices the climate system has (called a bifurcation) which involves the upper ocean circulation.

While the El Niño and La Niña states only last a year or two, there might well be alternate climate states involving the deep ocean circulation that can last for centuries, such as we know historically happened with the Roman Warm Period, the Medieval Warm Period, and the Little Ice Age. The huge reservoir of cold, deep ocean water seen in Fig. 2 is always available to cool the atmosphere if ocean overturning increases, or if overturning decreases then warm water will build up at the surface and cause global warming.

3) How are temperature data manipulated?

There are three main methods used to monitor global temperatures, all of which have systematic errors that need to be corrected for.

We have had thermometer data since the mid-1800s, which are our only reliable way of monitoring near-surface temperatures. Over the oceans, the thermometer measurements have mostly come from buoys and ships. Weather balloons (radiosondes) have made measurements of the lower atmosphere only since the 1950s, and for a greatly reduced number of locations. Finally, satellite measurements of the lower atmosphere are our newest technology (since 1979), which have the unique advantage of global coverage.

Unfortunately, all three of these systems have undergone changes with time, and the effects of those changes are often as large as the global warming signal we are trying to measure. That's why it is not really advisable to just analyze the raw data and expect a meaningful result. Adjustments to the data for known changes in the measurement systems are necessary. But, the sizes of those adjustments are quite uncertain, and depending on how they are made, some large differences in calculated global temperature trends can result depending upon who is making the adjustment decisions.

In the case of thermometers, usually placed to measure air temperature about six feet above ground, there have been changes in the time of day that high and low temperatures for the day are reported. Also, natural vegetation around thermometer sites has gradually been replaced with man-made structures, which causes an 'urban heat island' (UHI) effect. This effect is experienced by millions of people every day as they commute in and out cities and towns.

The plot in Fig. 4 shows the average UHI effect in daily surface weather data I computed from weather reporting stations all around the world during the year 2000, based upon daily temperature differences between neighboring temperature stations. As can be seen, even at population densities as low as 10 persons per square kilometer, there is an average warming of 0.6 C (1 F), which is almost as large as the global warming signal over the last

y.

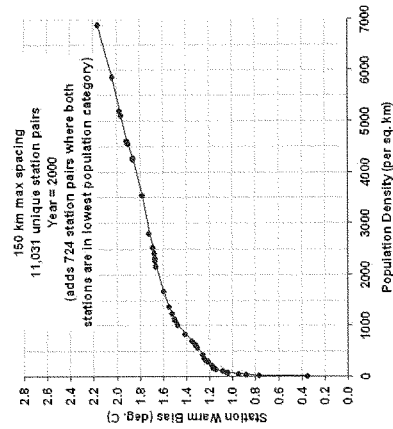


Fig. 4. Localized warming (Urban Heat Island effect) at temperature monitoring stations occurs as population density increases, as seen in this analysis of one year of daily temperature data from all reporting stations in the world. Note the most rapid warming occurs at the lowest population densities.

Clearly, to make meaningful estimates of global warming, the UHI effect must be taken out of the data. Unfortunately, the UHI effect is difficult to quantify at individual stations, many of which have obvious spurious heat influences around them like concrete or asphalt paving, exhaust fans, etc. In fact, there is evidence that the UHI effect has not been removed from the surface thermometer data at all. It appears that, rather than the urban stations being adjusted to match the rural stations, the rural stations have instead been adjusted to match the urban stations which then leads to a false global warming signal.

Besides the UHI effect, older mercury-in-glass thermometers housed in wooden instrument shelters (Fig. 5) have been largely replaced with electronic thermometer-type thermometers in smaller metal housings. The newer sensors measure electrical resistance which is then related to temperature. Such instrument changes do not really affect their use for weather monitoring, but can have a significant impact on long-term temperature monitoring.

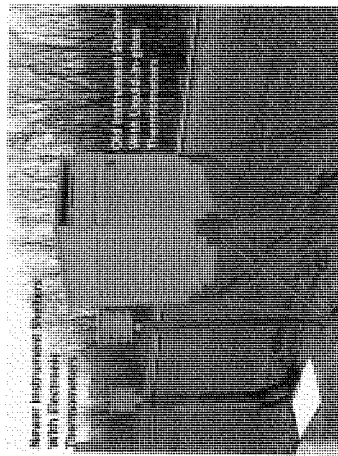


Fig. 5. Surface temperature measurements have changed. A comparison of the wooden Stevenson shelters that used to house traditional liquid-in-glass thermometers, versus the newer enclosures which now contain electronic thermometers (thermistors).

In the case of weather balloons, which measure the temperature profile up through the lower atmosphere (see Fig. 6), the instrumentation designs have also changed over time. The thermistors themselves have changed, shielding of the thermistors from sunlight has changed, as has the computer software for analyzing the data.

As in the case of the thermometer measurements, these changes have not affected weather forecasting, because they are small (usually a degree or less) compared to the size of day-to-day weather changes. But they are large and detrimental for the purposes of long-term temperature monitoring.

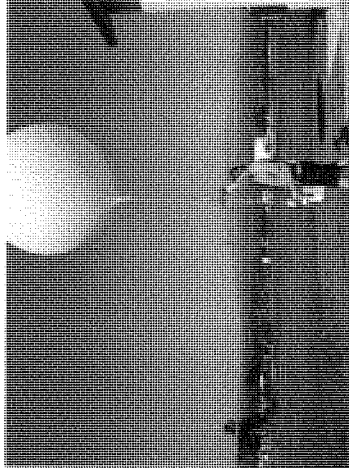


Fig. 6. A radiosonde (weather balloon) instrument package ready to be launched at Hilo, Hawaii, to measure the temperature profile of the lower atmosphere.

Finally, sensors flown on satellites (Fig. 7) measure how much thermal radiation is emitted by the atmosphere. But these must be replaced with new satellites every few years, and no two sensors are exactly alike. This means that successively launched satellites must be intercalibrated, that is, adjusted so that the newer satellite readings match the readings from older satellite during the period when both satellites are operating.



Then, most of the satellites slowly drift from measuring temperature at a specific time of day in the early years of a mission to a different time of day in later years, requiring another adjustment. This is due to the satellites slowly falling back to Earth, which takes them out of their original orbit which was intended to keep them measuring at the same time every day.

Finally, some of the satellites show small changes in their calibrated temperatures, usually by only hundredths of a degree, for reasons which are unknown.

The errors for satellites are typically hundredths or tenths of a degree, and so are generally smaller than for ground-based thermometer systems. Nevertheless, differences in how adjustments to the satellite data are made can lead to global temperature trend differences of 50 percent or more between different research groups' results, which has led to some controversy.

While some people criticize the satellite measurements as not really being a 'temperature' measurement, it is no more indirect than surface thermometers which use thermistors to measure electrical resistance, which is proportional to temperature. The satellites instead measure the intensity of thermal microwave radiation, which is also proportional to temperature. (Today, some doctors use a similar method to take your temperature by using an infrared-measuring instrument pointed in your ear.) Both surface thermometers and satellite sensors involve calibration adjustments to relate their measurements to temperature, and have their own relative advantages and disadvantages. One advantage of the satellite sensor is that a single measurement samples about 10,000 cubic kilometers of air, while a single thermometer measurement samples maybe a few cubic feet of air.

So we can see that the unavoidable adjustments that are necessary to analyze global temperature trends over many years lead to considerable uncertainty. In the case of the UAH satellite dataset I am the co-developer of, we estimate a global temperature trend uncertainty of 0.1 F per decade or less. By way of comparison, the IPCC-expected global warming signal is about 0.5 F per decade over the next 50 to 100 years.

4) Are global temperatures really going up? If so, by how much?

Are global temperatures rising? Actually, the better question is "have they risen?", because we can only observe temperature change in the rearview mirror, after it has gone by.

Thermometer data, after many adjustments have been made, suggest that the climate system has warmed by about 1.5 F since the mid-1800s.

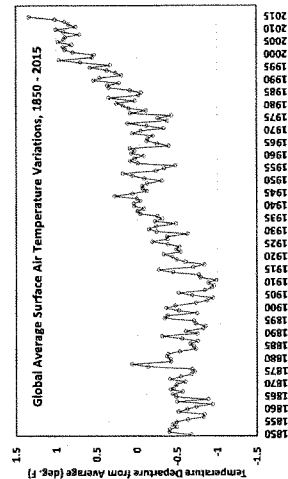


Fig. 8. Surface-based thermometer estimates of global average temperature, after adjustments, show about a 1.5 F temperature increase over the last 150 years (HadCRUT4 data).

This is an average warming rate of about 0.1 F per decade, which is hardly alarming. It is unlikely that anyone would notice such a small change over their lifetime. Warming has become more rapid in recent decades, though, about 0.3 F per decade since 1970.

But what is important from an energy policy standpoint is *all our temperature measurement systems indicate warming has been less than that predicted by the computerized climate models relied upon by the UN IPCC.*

This is illustrated in Fig. 9, which plots both the observed temperatures and model-estimated temperatures since 1979—the first year we had all three systems in operation (thermometers, weather balloons, and satellites). The surface temperature measurements are compared to the model-produced equivalent, and the measurements of the lower atmosphere (troposphere) are compared to their model-equivalent, giving an apples-to-apples comparison between theoretically modeled and actual observed temperature.

All 3 Global Temperature Dataset Types Disagree with Climate Models during the Period of Greatest Greenhouse Gas Concentrations

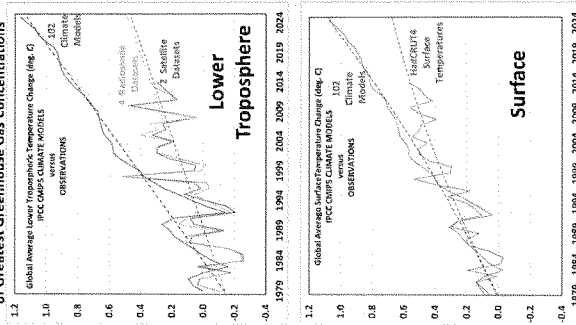


Fig. 9. Comparison between climate model "predictions" and actual observations of global average temperature since 1979 suggest that models are warming about twice as fast as the real world.

The average of 102 different climate models clearly shows it has been warming faster than the observations. This discrepancy between models and observations is crucial because *changes in government energy policy, such as an imposed carbon tax, are based upon the models being correct*. So far, the models are off by about a factor of 2. (While a few of the individual models are close to the observations, this is not relevant to the policy discussion because proposed energy policy

changes are based upon the average behavior of the models, not individual outlier models).

Those results are for global-average temperatures. Since people are more interested in what's happening where they live, let's look at the U.S. Midwest in the summer. Specifically, what has been happening in the 12-state corn growing region, a region where we have been warned climate change is going to seriously hinder crop productivity?

For the June-July-August growing season, Fig. 10 shows there has been little if any warming, whereas the IPCC climate models have predicted dramatic warming:

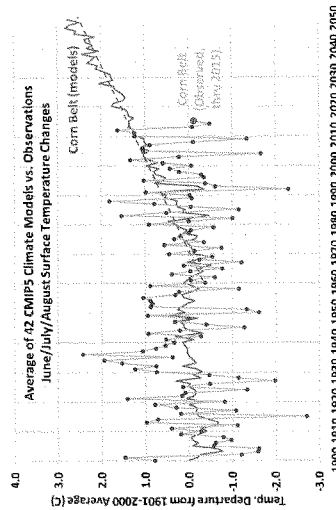


Fig. 10. Comparison of the average surface temperature predictions across 42 climate models with actual observations for the primary U.S. Corn Belt states (IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI) also shows the models are warming faster than the real climate system (official NOAA data).

Similarly, there has been no long-term change in precipitation over the same period of time. Thus, even regionally we find that what little warming has occurred is far below what the models suggest should have happened.

5) Is the warming enough to be concerned about? Is warming necessarily a bad thing?

If the climate system has warmed, and even this warming is 100 percent caused by humans, is it enough for us to be concerned about?

That is not an easy question to answer, since it depends upon qualitative issues like whether warm is better than cold, and whether there is a preferred temperature state for the Earth.

Historically, and geographically, warmer temperatures have been better for humans and for Mother Nature. Most humans choose to live in warmer climates, as do most plants and animals. Despite the media interest in heat waves, cold weather still kills many more people than hot weather. All life on land requires fresh water, though, so we don't find many humans, plants, or animals choosing to live in the world's deserts.

So, modest warming would probably be mostly benign or even beneficial. The reason why Americans consistently rate climate change near the bottom of Gallup Poll rankings of public concerns, year after year, is that people really don't view a couple degree rise in temperature as affecting their lives, when most of them are already used to many tens of degrees of temperature change on a daily or seasonal basis.

Even though the Earth's temperature has been much warmer and much cooler in the past, some people raise the philosophical—or even religious—question of whether humans should be impacting global temperature at all. One way I address this is to point out that the existence of trees on the Earth no doubt affects global temperatures, so why not humans? Do trees have more rights than humans to affect their environment? What about all of the smaller forms of plant life that the trees branches rob of sunlight? Clearly, the philosophical argument over this could go on endlessly.

6) Could the warming be both natural and human-caused?

While the question of the root cause of recent warmth is usually phrased in terms of it being either all natural or all man-made, is it possible that the answer is really some of each?

Yes. Our own published research suggests that the recent warming of the oceans between the mid-1950s and the present was about half caused by stronger El Niño activity, which tends to cause global warmth. And, who knows what other natural climate forces are at work? Shockingly, the U.S. government funds virtually no research into natural causes of climate change, now that human-caused global warming has become so fashionable.

What is a little ironic is that for many years climate researchers discounted the role of Mother Nature in climate change. Then, when global average temperatures essentially stopped rising after about 1997 (the so-called pause or hiatus), those same researchers had to look to Mother Nature to find some sort of natural cooling mechanism that they believed was canceling out the human-caused warming. This has at least had the benefit of bringing the potential role of natural climate change back into the debate.

If human-caused global warming is only one-half (or less) of the problem we are being told it is, that's hugely important to any government energy policy changes. At a minimum, it means we have twice as long to find replacements for fossil fuels.

7) Why would the climate models produce too much warming?

The most recent period of rapid warming was during the 1980s–1990s. Coincidentally, this was also the period when climate models were also being rapidly developed.

Since climate models can be “tuned” to produce a rather arbitrary amount of warming (see the next section on climate sensitivity), they were tuned to be “sensitive” enough so increasing carbon dioxide alone was sufficient to cause the observed warming. It was assumed that there was no natural component of the warming, since we really don't know the causes of natural climate variations.

As a result, none of the models were prepared for the global warming “hiatus” we have experienced since about 1997, because their climate sensitivity was set too high. The models continued to warm after 2000, while the real climate system essentially stopped warming, leading to the divergence between models and observations seen in Figs. 9 and 10.

8) What is climate sensitivity?

“Climate sensitivity” is the holy grail of climate research. It usually refers to the amount of warming that will eventually result from a doubling of the atmospheric CO₂ concentration from its preindustrial value, for example from 270 to 540 ppm (parts per million). That doubling will likely occur late in this century.

Climate sensitivity has two components, direct and indirect. Most researchers (myself included) believe that the *direct* warming from doubling CO₂ is about 1°C, which by itself would not be a problem for humanity. But the larger and more uncertain part is the *indirect* effects of warming-induced changes in clouds, water vapor, and anything else in the climate system that can impact temperature. These indirect changes are called climate feedbacks, a subject on which a minority of us climate researchers depart from the majority.

In the climate models most feedbacks amplify the warming and so increase the IPCC estimate of climate sensitivity to 1.5–4.5°C (2.7–8.1°F), which represents a rather large factor of three range of uncertainty. A bar chart of the distribution of future warming rates predicted by all of the 100+ computer climate models (Fig. 11) shows an even wider range; again, the higher the model climate sensitivity, the more warming it will predict going into the future.

This figure is like a bell curve, but note that it has a long tail skewed to the right, toward very high climate sensitivities. This is why some people who are concerned about global warming are so alarmed: a few of the models predict very large amounts of warming in our future, 10°C or more.

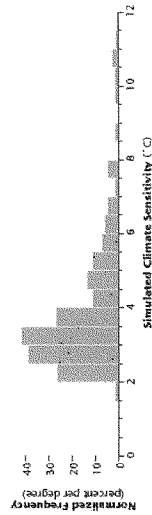


Fig. 11. Frequency histogram of the climate sensitivities of 100 climate models tracked by the IPCC, revealing large uncertainty for much warming we can eventually expect from a doubling of atmospheric carbon dioxide late in this century.

10) Haven't ocean temperatures been going up, too?

Most of the Earth is covered by oceans, and we now have a network of thousands of automated buoys monitoring ocean temperature at depths down to 2,000 meters. Called the Argo floats, the sensors dive down as currents carry them around the world, taking measurements, then they rise to the surface and transmit the data to satellites. They then start the measurement cycle all over again.



Fig. 12. An Argo float being deployed to measure ocean temperature to depths of 2,000 meters.

The trouble with monitoring ocean temperatures over a long period of time, though, is that we only have a few measurements made from ship expeditions back to the 1950s, and the Argo floats weren't fully deployed until about 2005. Nevertheless, they suggest there has been a tiny warming of the oceans at a rate of about 0.04 F per decade averaged over the layer from the surface to 2,000 meters depth.

This is an exceedingly small warming rate, and one can legitimately question whether the Argo system can measure such a small warming rate with very much certainty. Furthermore, if you run the math, the warming is considerably less than is expected from the 1 percent decrease in the rate of energy loss that has theoretically materialized from our carbon dioxide emissions. It is closer to a 0.1 percent effect (1 part in 1,000 energy accumulation rate).

So, like the atmospheric temperature we have already discussed, the situation in the ocean is similar: *the evidence suggests modest warming at a rate that is not terribly alarming.*

One question I see frequently is whether ocean warming (if it really exists) could be due to undersea volcanoes and lava vents. But this geothermal source of heat is generally considered to be very small by geophysicists who have averaged it over the global oceans. Furthermore, it would have to be increasing over time to cause a warming trend. So, while not out of the realm of possibility, I don't currently see undersea geothermal heating as a significant source of warming.

19

But these large rates of warming are not directly from the extra carbon dioxide, which all scientists agree will result in only minor warming. They are instead from those very uncertain feedbacks. One of the most uncertain feedbacks is from clouds: will global cloud cover increase or decrease with warming? If clouds increase, which I believe will happen, that's a negative feedback and the result will be less warming. If clouds decrease, a position the IPCC tends toward, that's a positive feedback and it will increase warming. I've written an entire book on the subject of cloud feedbacks.

A minority of climate scientists like me believe climate sensitivity could be 1 C (1.8 F) or less, due to negative feedbacks in the climate system. But no one really knows. This is a field of science that is highly uncertain, and there are very few true experts. If someone tells you that climate models should be believed because they are based upon real physics, that is *mostly* true. But their treatment of cloud feedbacks (for example) is so uncertain that it makes all the difference in their predictions of global warming and climate change.

The models are only as good as their weakest link. And the old adage about computers—"garbage in, garbage out"—remains true today.

It should be noted that most climate researchers who are polled on the subject of the seriousness of the global warming threat don't really know enough to give an independent, informed opinion...they simply go along with what they have heard others say. Most of them do not perform research on feedbacks and climate sensitivity, let alone understand those issues.

I like to say that climate science isn't rocket science—it's actually much harder.

9) But don't 97 percent of climate researchers agree that global warming is a serious man-made problem?

The claim that 97 percent of climate experts agree on global warming and climate change is not true, and was based upon a study with flawed methodology.

Nevertheless, I'm quite sure a fairly large majority of climate experts believe that recent warming is mostly man-made, and could be a potentially serious problem in the distant future. A recent survey of members of the American Meteorological Society found that 67 percent believe that recent warming is mostly (or completely) human-caused. That leaves 33 percent who believe that less than half of climate change is the fault of humans, which is a big difference from the 97 percent survey which would suggest only a 3 percent minority opinion.

Besides, if global warming is settled science, like gravity or the Earth not being flat, why isn't the agreement 100 percent? And since when is science settled by a survey or a poll?

The hallmark of a good scientific theory is its ability to make good predictions.

From what we've seen, global warming theory is definitely lacking in this regard.

If you claim that at least the *existence* of warming (not its magnitude) was successfully predicted by the models, how is that any different than flipping a coin?

18

11) What does it mean when we hear “the highest temperature on record?”

We often hear reports on the nightly news of “record high temperatures.” But record high temperatures aren’t a terribly useful way of establishing evidence for climate change, especially if they refer to a specific location, which is what we usually hear about during our daily weather forecast.

Since our temperature measurements haven’t been around that long (100 years or so at most), temperature records can be expected to be broken from time to time just due to the chaotic nature of weather variations, without global warming.

But let’s imagine that we were breaking the same high temperature records every year, year after year. Would *that* be cause for alarm?

Well, if there wasn’t any natural weather variability involved, and we had a very slow rate of global warming occurring, say 0.01 F per year, then each year would be warmer than the previous year. Each year would set a new record.

But who would care? What matters is how much warmer it’s getting, and how fast.

Also, not all records are created the same. For a given weather station, there can be a record high for the date (not a difficult record to break), a record for the calendar month, or an all-time record high (that’s harder to achieve). These kinds of records are also broken for low temperatures as well.

If we examine the U.S. where the best thermometer data exist, the period with the most high temperature records was in the 1930s, during the Dust Bowl days. While that climate anomaly is believed to have been largely natural in origin, some believe it was made somewhat worse by farming and land use practices at that time. So, clearly, Mother Nature still has a large role in not only weather, but climate variations that do impact human affairs.

Record high temperatures in the *global average* are a somewhat more useful indicator of climate change. For example, 2015 was the warmest year in the surface thermometer record (in the last 100+ years), and only the third warmest year in the satellite record, which only started in 1979.

But the best measure is probably the temperature *trend*, which takes into account all of the data over many years (usually ten or more). An individual record warm year for the whole Earth really tells you very little about the long-term trend, which is what we primarily use to monitor global warming.

In summary, while newsworthy, record high temperatures are not a particularly useful way to determine whether global warming is occurring. In fact, they can be quite misleading. They usually have more to do with weather than with climate.

12) Is there a difference between weather and climate?

There are no strict definitions that distinguish between weather and climate. The main difference is the length of time being addressed.

It’s reasonable to say that *climate is weather averaged over a month or longer*.

If you experience a cold snap, that’s weather. If the cold snap lasts for the entire month of April, then that would be considered more of a climate-type variation.

So, we usually talk about climate variations as having time scales from one month to many years. Less than one month duration, we call it weather.

In today’s culture, major weather events are increasingly being blamed on climate change. This isn’t just an invention of an increasingly sensationalized media, as some scientists are even making such claims.

But the fact is that there has been a long-term decrease in strong tornadoes, no obvious changes in global hurricane activity, heat waves, or droughts, and no decrease in snow cover. The current drought in California is not nearly as bad as tree ring evidence suggests for centuries past. Even sea ice, which has indeed decreased in the Arctic, has increased in the Antarctic; the net global change has been near-zero since we started satellite monitoring in 1979.

The exaggeration of weather events as some sort of indication of climate change represents a clear bias on the part of some media-savvy scientists, and their colleagues do not call them on it for fear of losing funding.

13) Why would climate science be biased? Isn’t global warming research immune from politics?

It would be hard to imagine an area of scientific research more prone to political bias than climate research.

Everything humans do requires access to energy. Climate research results are used to influence decision about how much and what kinds of energy are produced, how much it will be taxed, etc.

Remember, virtually 100 percent of climate research is ultimately managed by either politicians in Congress who appropriate the research funds, or political appointees heading up the funding agencies who decide in more detail what kinds of research will be supported. Congress does not provide research funds for non-problems... if the global warming threat was to cease to exist, the funding would disappear. This means the scientists also have a vested interest in keeping the global warming issue alive.

Therefore, there is an inherent bias to interpret data in ways that keep the climate change threat going. Because there is so much uncertainty regarding what climate data mean in terms of cause and effect, this can be done without lying or outright deceit. Scientists convince themselves that even if they are wrong about the science, getting humanity off of fossil fuels is the right thing to do anyway. (I’ve actually had

mainstream climate scientists tell me this).

Conclusion

It should be clear that the science of global warming is far from settled.

Uncertainties in the adjustments to our global temperature datasets, the small amount of warming those datasets have measured compared to what climate models expect, and uncertainties over the possible role of Mother Nature in recent warming, all combine to make climate change beliefs as much faith-based as science-based.

Until climate science is funded independent of desired energy policy outcomes, we can continue to expect climate research results to be heavily biased in the direction of catastrophic outcomes. ★



901 Congress Avenue | Austin, Texas 78701 | (512) 472-2700 Phone | (512) 472-2728 fax
www.TexasPolicy.com

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

May 13, 2016

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy:

In early February, the Supreme Court granted applications for a stay of the Environmental Protection Agency's "Clean Power Plan." The Court's unprecedented order expressly and categorically stays the promulgated rule. The rationale for this extraordinary action was to save states and other stakeholders from taking actions, expending resources and incurring costs in response to a rule that may not be legal. Yet from the very first weeks following the order, EPA has been taking steps that circumvent the Court's stay and potentially undermine the relief provided by the stay in the first place.

On March 22, 2016, you testified before our Committee that, in response to the stay, EPA has "discontinued our implementation and enforcement of the rule," but that the agency had been and would continue to provide assistance relating to the rule to states that "voluntarily decide to move forward." We now see that, in addition to expending resources to provide "assistance" to individual states, EPA has been expending resources on several regulatory processes that are integrally related to the suspended rule and that would compel states and regulated entities in turn to expend resources to respond to these proceedings—or otherwise forego legal rights—and, indirectly, participate in implementation of the stayed rule.

Two weeks ago, EPA staff advised the Committee that the agency "sent a proposal with details about the optional Clean Energy Incentive Program (CEIP), a component of the Clean Power Plan, to the Office of Management and Budget for interagency review."¹ The CEIP is a program under which EPA would make "Emission Reduction Credits" or allowances available to states to reward early investments in wind and solar energy and demand-side energy efficiency

¹ See also <http://www.reginfo.gov/public/do/eoAdvancedSearch> (April 26, 2016; RIN 2060-AS84, "Clean Energy Incentive Program Design and Implementation; Pending Review").

Letter to The Honorable Gina McCarthy
Page 2

projects. This new rulemaking proposal arises directly from the Clean Power Plan and, but for this rule, the new proposal would have no basis. Thus, it is of significant concern that this new rulemaking is proceeding when the underlying rule is categorically stayed.

In addition, the agency has confirmed it is moving forward with its proposed “Model Trading Rules” and other regulatory guidance for implementing the Clean Power Plan.² These rules and guidance similarly have no basis independent of the Clean Power Plan. To the extent EPA proceeds with any such actions to implement the stayed rule, it deprives states and other stakeholders the benefits of the stay by compelling participation in regulatory processes that inappropriately assume the validity of a rule that may ultimately be struck down.

Adding to this situation, EPA officials have also stated that certain compliance deadlines in the Clean Power Plan may not be tolled should the stay be lifted—the thrust of which is that states and other stakeholders would be prudent to begin voluntarily preparing now for rule implementation in case its legality is upheld.³ This “take action or else” messaging underscores indications that EPA, despite the stay, is seeking to coerce additional action to lock in compliance with the mandates of its rule—even if the rule is found to be unlawful.

In sum, the agency’s decision to move forward with a shadow regulatory structure to implement the Clean Power Plan presents several obvious concerns. Continuing to develop a suite of derivative rules and guidance raises questions about whether EPA is complying fully with the Court’s stay order, about what legal authority the agency has to proceed with such actions, about how these actions affect the equities of states and stakeholders, as well as about the agency’s stewardship and use of taxpayer resources.

In light of these concerns, we request additional information to assist the Committee in understanding the agency’s actions and the potential impacts of its actions. Pursuant to Rules X and XI of the U.S. House of Representatives, we ask that you provide written responses and responsive documents to the following requests by May 27, 2016:

1. What is the agency’s legal basis for proceeding with a regulatory proposal to implement the CEIP when the rule establishing this program has been stayed?
2. What statutory provisions does EPA believe authorize it to move forward with derivative regulatory proposals relating to the Clean Power Plan while the stay is in effect?
3. Identify all rulemakings, guidance, directives, or other regulatory actions the agency is currently pursuing that relate to the Clean Power Plan, and the statutory authority for proceeding with each such action.

² See April 18, 2016 Letter from Janet McCabe, Acting Assistant Administrator for Air and Radiation to the Honorable James Inhofe, available at <http://www.epw.senate.gov/public/cache/files/ca20cabb-4494-47af-822c-3e814707eb80/epa-response-to-tolling-letter-04-18-2016.pdf>.

³ Statements raising uncertainty about tolling if the stay is lifted run contrary to the Solicitor General’s representations to the Supreme Court that the effect of the stay would be to toll all deadlines under the Clean Power Plan. See February 2016 Memorandum for the Federal Respondents available at <http://www.ago.wv.gov/publicresources/epa/Documents/M0117886-1.PDF> at pp. 2-3, 71-72.

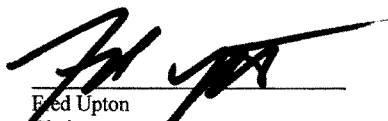
Letter to The Honorable Gina McCarthy

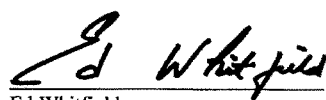
Page 3

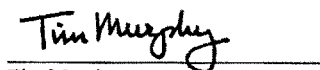
4. Does EPA currently plan to finalize any of these rulemakings, guidance, directives, or other regulatory actions relating to the Clean Power Plan while the stay is in effect? If yes, please identify each such rulemaking, guidance or directive.
5. Have you requested any legal analysis to ensure that the agency has the legal authority to pursue and expend resources on regulatory actions to implement aspects of the Clean Power Plan? If yes, please produce such analysis or analyses to the Committee.
6. Since issuance of the stay, what resources has the agency expended on rulemakings, guidance, and other regulatory actions relating to implementation of the Clean Power Plan?

We appreciate your prompt attention to this request. Should you have any questions, please contact Mary Neumayr or Peter Spencer of the majority committee staff at (202) 225-2927.

Sincerely,


Ed Upton
Chairman


Ed Whitfield
Chairman
Subcommittee on Energy and Power


Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: The Honorable Howard Shelanski
Administrator, Office of Information and Regulatory Affairs

The Honorable Frank Pallone, Jr., Ranking Member

The Honorable Bobby Rush, Ranking Member
Subcommittee on Energy and Power

The Honorable Diana DeGette, Ranking Member
Subcommittee on Oversight and Investigations

Which State Is a Big Renewable Energy Pioneer? Texas - WSJ

<http://www.wsj.com/articles/which-state-is-a-big-renewable-energy-pion..>**THE WALL STREET JOURNAL**

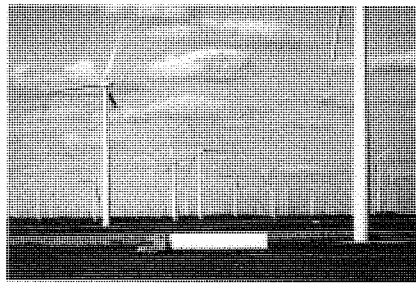
This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <http://www.djreprints.com>.

<http://www.wsj.com/articles/which-state-is-a-big-renewable-energy-pioneer-texas-1472414038>

U.S.

Which State Is a Big Renewable Energy Pioneer? Texas

The Lone Star state has added more wind-based capacity than any other, as part of an aggressive energy diversification that seeks to skirt ideological land mines



A truck rolls past a wind farm in Colorado City, Texas. PHOTO: SPENCER PLATT/GETTY IMAGES

By **BILL SPINDLE** and **REBECCA SMITH**

Aug. 28, 2016 3:54 p.m. ET

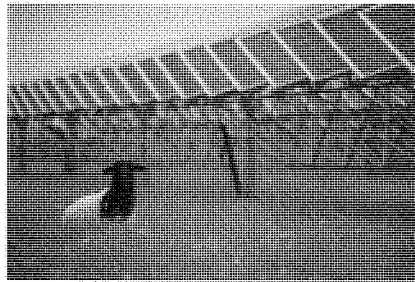
SAN ANTONIO—On a blustery February night, the Texas electricity market hit a milestone. Nearly half the power flowing onto the grid came from wind turbines, a level unimaginable a decade ago in a place better known for its long romance with fossil fuels.

The Lone Star state still embraces its oil and gas, leading a revolution in innovative “fracking” technology. Yet an equally startling energy bonanza here has gone almost unnoticed—the rise of renewables.

Texas has added more wind-based generating capacity than any other state, with wind turbines accounting for 16% of electrical generating capacity as of April.

Now Texas is anticipating a huge surge in solar power.

At a time when debate is raging between political parties over climate change, and critics charge that “green energy” is little more than a government creation, Texas has taken an approach that works within the state’s free-market-based electricity system. State officials say wind and solar are almost certain to play a significant and growing role in the state’s energy future even when federal subsidies decline in coming years.



Sheep help keep grass trimmed at a solar farm in Haskell, Texas. PHOTO: MATTHEW MAHON FOR THE WALL STREET JOURNAL

“We’re in chapter three of a 50-chapter book,” says Joel Mickey, director of market design and development for the state’s electric-grid operator, the Electric Reliability Council of Texas, or ERCOT.

Elsewhere, most of the renewable growth is coming from blue states. California is the leader in solar power with more systems cranking out electricity, right now, than what Texas hopes to add in the next five to 10 years. New York finalized a plan Aug. 1 to get to half its power from zero-emission sources by 2030, with big goals for offshore wind turbines. And wind farms provided Iowans with nearly a third of their electricity last year—the largest percentage of any state. Texas remains one of the few reliably Republican states to jump on the bandwagon.

Its transformation hasn’t come without risks. In the early days, the state government charged electric-system users billions of dollars to build transmission lines needed to get power from windy West Texas to power-hungry cities. There was also a steep learning curve. Renewable power is only available

when the wind is blowing or the sun is shining. It can't be dispatched precisely when it's needed but just when it's available, meaning grid officials have had to become obsessive about anticipating weather. Efficient battery-storage technologies remain elusive.

Then there is the issue of subsidies. Wind projects get hefty federal payouts whenever they generate electricity. At auctions, this means they can sometimes pay the state to take their electricity and still make money, undercutting the business model of fossil-fuel generators.

Some critics worry this could lead power companies to decommission fossil-fuel plants prematurely—even though some fuel sources such as natural gas and coal are arguably cheaper these days.

“How do we keep big plants online if wind and solar have eroded the economics to the point that companies want to close them?” asks Travis Fisher, an economist with the Institute for Energy Research, a conservative think tank.

The roots of Texas' renewables boom go back to 1999, when then-Gov. George W. Bush and a Republican-dominated legislature overhauled the Texas power market. The free market-oriented deregulation broke the grip of most monopoly utilities that controlled generation, transmission and retail sales of electricity and introduced competitive auctions for wholesale power.

The deregulation plan, which Mr. Bush signed just days after announcing he would run for the presidency, also included a government-imposed requirement to have at least 2,000 megawatts of renewable generating capacity by 2009.

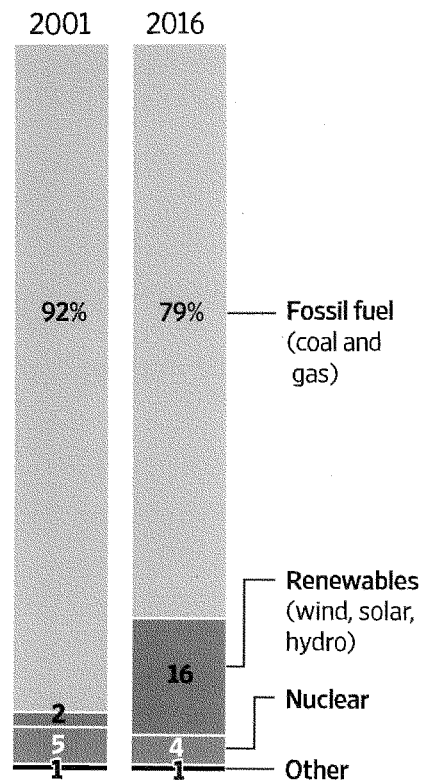
Texas blew past that goal in 2005. Then Gov. Rick Perry, also a Republican and no fan of government intervention, raised the goal to 10,000 megawatts by 2025. Texas hit that target in 2011 and kept going. In April, there was more than 19,000 megawatts of renewable capacity, according to the U.S. Department of Energy, cranking out enough power for nearly 4 million Texas homes.

Texas officials didn't invoke global warming to sell the program. Instead, they touted renewable energy as a consumer-choice issue, a jobs producer and a way to pump more money into rural counties.

Jimmy Glotfelty, Mr. Bush's gubernatorial policy director from 1991 to 1994, says his boss “grew up in Midland where the wind blew all the time” and it gave him a hunch wind power could be a huge asset for the state. “It wasn't part of the climate-change revolution but a belief in free markets and entrepreneurs.”

Rising Renewables

Texas's energy sources



Source: U.S. Energy Information Administration

A recent poll conducted by the Texas Clean Energy Coalition, a nonpartisan group that supports the growth of gas as well renewable energy, found that despite strong distaste for federal environmental regulations aimed at reducing coal, 85% of Texans favored expanding renewables while 9% were opposed. Among Republicans and those who described themselves as ideologically conservative, nearly 80% favored those sources.

Residents of Houston currently can pick from 107 different rate plans offering 5% to 100% renewable power. In general, they are willing to pay a bit more to go green. Top-rated Reliant, a unit of NRG Energy Inc., charges 7.1 cents a kilowatt-hour for the plan that's all renewable versus 5.9 cents for one that's 5%

THE WALL STREET JOURNAL.

green.



George W. Bush kicked off the Texas renewable-energy boom when he was governor. PHOTO: DAVID WOODS/GETTY IMAGES

Federal subsidies are scheduled to shrink in coming years. An equally big driver of renewables has been the falling costs of solar and wind technology. Solar costs are down 48% since 2010, including a 6% drop last year, according to the Solar Energy Industries Association, a trade group. Those reductions are likely to continue as solar-panel manufacturers achieve economies of scale and new technologies cut costs and increase efficiency.

“[Texas] wants to have a diversity of resources because no one knows what gas prices will be in the future,” says Joel Cohn, at CohnReznick, an accounting tax advisory in New York that advises on renewable projects.

The state’s grid operator, ERCOT, expects explosive growth in solar. One analysis suggested the recent extension of the federal solar tax credit could lead to as much as 19,000 megawatts of solar capacity being built within 15 years, up from roughly 500 megawatts today. Texas is poised to vault from 10th place among states in solar capacity to second in the next five years, behind only California, according to the Solar Energy Industries Association.

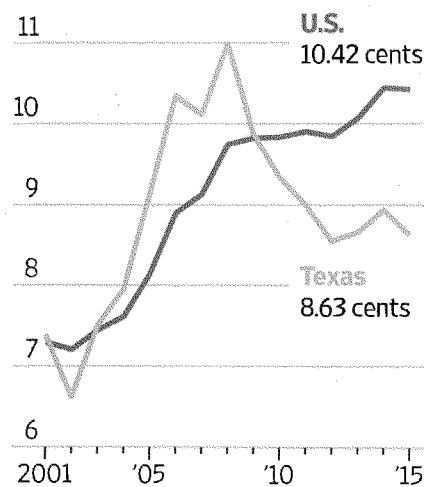
Wind projects, including construction of power lines, created jobs in rural counties and gave landowners new sources of income. The state now has more than 100,000 people working in renewable energy, according to the Texas Workforce Commission, which is responsible for jobs creation.

Two sites in San Antonio operated by the city’s utility, CPS Energy, embody the

Cheaper Power

Average retail electricity price

12 cents a kilowatt hour



Source: U.S. Energy Information Administration

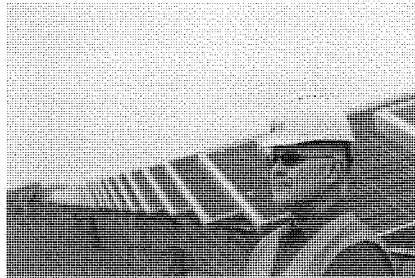
THE WALL STREET JOURNAL.

change. The J.T. Deely generating plant, where smokestacks loom over piles of coal, is being retired. A few miles away, CPS's two-year-old Alamo 2 solar farm, nestled between a pair of suburban neighborhoods, turns sunlight into electricity. As a few dozen sheep and a llama keep the grass in check, solar developer Randy Jenks notes the appeal.

"It's clean. It's quiet. People want it here," he says, standing beside a few of the 17,920 solar modules that make up the 45-acre facility. When all phases of the Alamo solar venture are completed, it is expected to exceed 450 megawatts, or more solar capacity than existed in the whole state a couple of

years ago.

Mr. Jenks started out in oil-and-gas exploration in the 1980s, then moved into wind power in the 1990s. Now he's pursuing what he and his employer, OCI Solar Power, which is part of OCI Company of South Korea, see as the next big thing for Texas.



Randy Jenks, a solar developer for Korea's OCI Energy of Korea, used to work in the oil-and-gas business.
PHOTO: MATTHEW MAHON FOR THE WALL STREET JOURNAL

Back in 2010, CPS started thinking about solar. By 2012, it was ready to bet big. The utility signed deals with OCI Solar to build what would eventually be 450 megawatts of solar generating capacity—50% more than in all of Texas even now—on the condition OCI set up its manufacturing operations nearby and create at least 800 local jobs.

Now the city boasts its own solar industrial base, with all of the solar panels for its facilities manufactured locally. OCI and suppliers it brought to San Antonio are now lining up orders from developers in Mexico and other parts of the U.S.

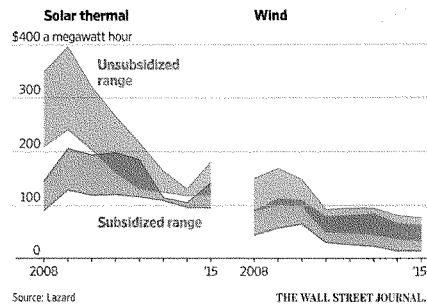
Renewables are still a tiny part of CPS's business, but its leadership expects them to grow rapidly.

"The cost has come down to the point where people can really see the value," said Cris Eugster, the chief operating officer for San Antonio's utility, CPS Energy.

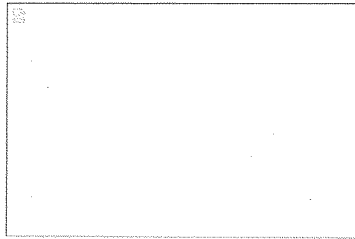
Write to Bill Spindle at bill.spindle@wsj.com and Rebecca Smith at rebecca.smith@wsj.com

Market Forces

Alternative energy sources, subsidized vs. unsubsidized costs

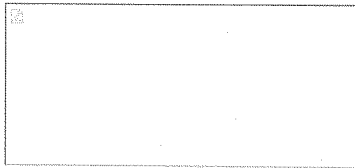


What To Read Next...



KEYWORDS

Why Electric Cars Will Be Here Sooner Than You Think



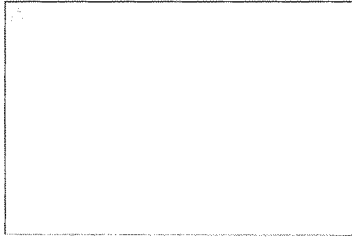
Which State Is a Big Renewable Energy Pioneer? Texas - WSJ

<http://www.wsj.com/articles/which-state-is-a-big-renewable-energy-pion...>



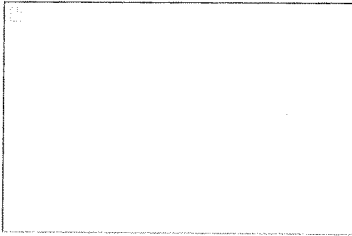
HEALTH

Health Insurers' Pullback Threatens to Create Monopolies



EXPERIENTIAL

White Retiree Influx Helps Keep Florida in Play for Donald Trump



HEALTH

Mylan to Launch Cheaper Generic EpiPen Alternative



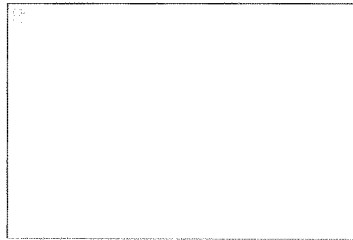
Which State Is a Big Renewable Energy Pioneer? Texas - WSJ

<http://www.wsj.com/articles/which-state-is-a-big-renewable-energy-pion...>



HEALTH

Glaxo Bets It Can Shake Up HIV Treatment



A-HED

They Shoot Horses (With Birth-Control Darts), Don't They?

Copyright 2014 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-9008 or visit www.djreprints.com.

**Bloomberg
BNA**

Daily Environment Report™

Reproduced with permission from Daily Environment Report, 104 DEN B-1, 05/31/2016. Copyright © 2016 by The Bureau of National Affairs, Inc. (800-372-1033) <http://www.bna.com>

Regulatory Policy

How agencies justify their rules is an area of growing focus, particularly as environmental economics has evolved to contemplate the co-benefits of rulemakings. In this piece, the NERA consultancy's Scott Bloomberg details why EPA's projections of regulatory impacts do not take cleaner air into account and do not appropriately acknowledge uncertainties.

EPA's Particulate Matter Co-Benefits: A Case of Ever-Declining Credibility



By SCOTT J. BLOOMBERG

Scott J. Bloomberg is a vice president in NERA Economic Consulting's Energy & Environment group. For almost 15 years, he has been evaluating the national and regional effects of proposed environmental regulations in the electricity sector. He is not related to Michael Bloomberg, owner and chief executive officer of Bloomberg LP.

Regulatory impact analyses are required for major federal regulations. A central feature of a regulatory impact analysis is comparison of a rule's estimated benefits to its estimated compliance costs. The benefits attributed to a rule may include "co-benefits"—beneficial impacts that are not the direct objective of the regulation. One might expect co-benefits to play only a subsidiary role in the justification for a new regulation. But the opposite has become the norm in impact analyses for EPA's air rules, in which direct benefits of each new rule are, more frequently than not, over-

whelmed by estimates of co-benefits from ambient fine particulate matter (PM-2.5).

The dominant role of PM-2.5 co-benefits in EPA's regulatory analyses has been questioned for many years, including in Supreme Court oral arguments last year regarding EPA's 2011 power plant rule on emissions of mercury and air toxics. In that case, *Michigan v. EPA*, Chief Justice John Roberts questioned the "disproportionate" nature of the mercury and air toxics rule's PM-2.5 co-benefits, suggesting they might represent an "end run around" national ambient air quality standards. The chief justice's questioning focused on the appropriateness of a pollutant that already has its own regulatory framework taking on such a dominant role as a co-benefit for another type of pollutant.

In this commentary, I wish to bring attention to a separate and additional concern related to the *credibility* of those co-benefit estimates. Issues also have been raised about the credibility of the mercury rule regulatory impact analyses co-benefits, but the point is that the credibility of PM_{2.5} co-benefits also is declining as they accumulate in more and more impact analyses. The cause of the declining credibility lies in the inconsistent manner in which EPA calculates PM-2.5 co-benefits relative to EPA's ambient air standards determination and the fact that the air is getting cleaner.

This issue, while certainly present in the mercury impact analysis, is even more troubling in regulatory impact analyses submitted to the Office of Information and Regulatory Affairs since 2011. To make the point, the focus should be on one of the most recent impact analyses containing PM-2.5 co-benefits estimates—the Clean Power Plan or climate rule regulatory analysis finalized in 2015. The climate rule targets CO₂ emissions, so any benefits ascribed to CO₂ reductions would be "benefits," whereas any benefits attributable to reductions in other emissions (such as PM-2.5 and ozone precursors like SO₂ and NO_x) would be "co-benefits."

What Is the Nature of the Inconsistency?

In a recent article in the journal *Risk Analysis*, Anne Smith identifies inconsistencies between the way EPA calculates criteria pollutant benefits and co-benefits in its impact analyses and the reasoning that the EPA administrator applies when determining the level at which to set the air standards. Smith notes that co-benefits estimates are exceptionally susceptible to the credibility issues that arise from such inconsistency, pointing to both the mercury and the climate rule for power plants' co-benefits as examples.

As detailed in Smith's article, the Clean Air Act requires the air standards be set at a level that the EPA administrator determines is "requisite to protect the public health" with "an adequate margin of safety," based on the best available scientific evidence on health effects. But the epidemiological associations that are the basis for the PM-2.5 NAAQS are not able to define a clear point at which public health is protected (i.e., no threshold has yet been identified). In that situation, the EPA administrator turns to the question of "confidence" in the continuation of those associations below the observed range of concentrations to help draw a line:

In reaching decisions on alternative standard levels to propose, the administrator judged that it was most appropriate to examine where the evidence of associa-

tions observed in the epidemiological studies was strongest and, conversely, where she had appreciably less confidence in the associations observed in the epidemiological studies.

In 2013, after reviewing the scientific information, EPA set the annual PM-2.5 National Ambient Air Quality Standards at 12 µg/m³ because the Administrator determined that to be the point...

... where her confidence in the magnitude and significance of the associations is reduced to such a degree that a standard set at a lower level would not be warranted to provide requisite protection that is neither more nor less than needed to provide an adequate margin of safety.

These "associations" are the very foundation of EPA's co-benefits calculations, and thus the above statement strongly implies a near-zero confidence in continued health risks calculated at ambient concentrations of PM_{2.5} below the ambient air quality standards. Logically, this can be translated to mean that the expected health risk change from a given unit of change in PM-2.5 at an ambient PM-2.5 concentration of 5 µg/m³ would be significantly less than from the same unit of change starting at 13 µg/m³.

As demonstrated in Smith's article, however, EPA's methodology for calculating health co-benefits ignores this lack of confidence in health risks continuing below the level of the PM-2.5 air standard, and instead assigns an equal confidence (i.e., 100 percent confidence) that the PM-2.5-mortality associations hold true all the way down to a zero concentration. This is the primary source of EPA's inconsistency with the air standard determination, and she explains how this results in substantial overstatement of expected benefits, particularly in the case of PM-2.5 health co-benefits.

Overstatement of PM-2.5 Co-Benefits Increasing

Smith's article notes that this overstatement is extremely large when the calculation is for co-benefits rather than direct benefits of the air quality standard itself, citing the co-benefits in the mercury and climate rule as two recent examples. She does not, however, note that the degree of overstatement is even larger for the climate rule than the mercury case. However, that is the logical implication of the inconsistency problem. As the ambient air in the U.S. gets cleaner, a greater share of the population will be living in areas where confidence in the continued association between PM_{2.5} and mortality is near zero. Thus, the degree of overstatement in co-benefits estimates from one regulatory analysis to the next has been increasing over time and will continue to do so. Let's illustrate how this works using these same two regulatory impact analyses.

In both the mercury and climate rule impact analyses, EPA estimated PM-2.5 co-benefits in the tens of billions of dollars per year. The diminished confidence of the EPA Administrator that the PM-2.5-mortality association continues below the ambient air quality standard, however, is not reflected in any manner in EPA's calculations of these co-benefits.

For the mercury rule, these co-benefits accounted for more than 99 percent of total benefits, which was the basis for Chief Justice Roberts' concern regarding their "disproportionate" share. Their inclusion was the only

reason EPA could justify the rule on a benefit-cost basis. In the CPP, approximately 50 percent of total benefits is attributable to co-benefits, primarily from PM-2.5, but also from ozone. While the share of total benefits attributable to co-benefits is lower in the climate than in the mercury rule, the climate rule's co-benefits estimates are actually more unreliable.

In the mercury RIA, EPA provides data showing that essentially all of the co-benefits are associated with avoided deaths in areas projected to already be below the annual PM-2.5 standard of $12 \mu\text{g}/\text{m}^3$ (89 percent are below $10 \mu\text{g}/\text{m}^3$ and 27 percent are below $7.5 \mu\text{g}/\text{m}^3$). EPA did not provide similar information for the climate rule, but in a recent study for the Virginia Department of Environmental Quality, NERA determined that 99 percent of the 2025 PM-2.5 precursor emission reductions in the proposed climate rule were projected to occur in counties with an expected PM-2.5 concentration in 2020 less than $12 \text{ ig}/\text{m}^3$, of which 97 percent are below $10 \text{ ig}/\text{m}^3$ and 55 percent are below $7.5 \mu\text{g}/\text{m}^3$.

Thus, compared to the mercury co-benefits, the proposed climate rule has double the co-benefits in areas with expected PM-2.5 concentrations very far below the ambient air quality standards (55 percent versus 27 percent in areas less than $7.5 \text{ ig}/\text{m}^3$), while the fraction of co-benefits in areas at least 15 percent below the air standard (i.e., less than $10 \text{ ig}/\text{m}^3$) has also increased substantially (i.e., to 97 percent from 89 percent). The simple reason for this is that the mercury co-benefits were based on air quality projected in 2015, while the Clean Power Plan co-benefits were based on air quality from 2020 and later—a much cleaner environment due to a very large number of emissions regulations poised to take effect after 2015.

While some, including Chief Justice Roberts, have questioned the “legitimacy” of EPA’s co-benefits in the mercury rule, the PM-2.5 co-benefits in the climate rule

are even more unreliable and overstated because a far greater share of those co-benefits are associated with ever lower PM-2.5 concentrations for which the EPA itself has significantly reduced confidence in PM-2.5-mortality associations. The continuing decline of SO_2 and NO_x emissions, and hence, ambient PM-2.5 concentrations, over time will continue to increase the degree of overstatement of EPA’s PM-2.5 co-benefits in each incremental air regulatory impact analysis going forward.

Conclusion

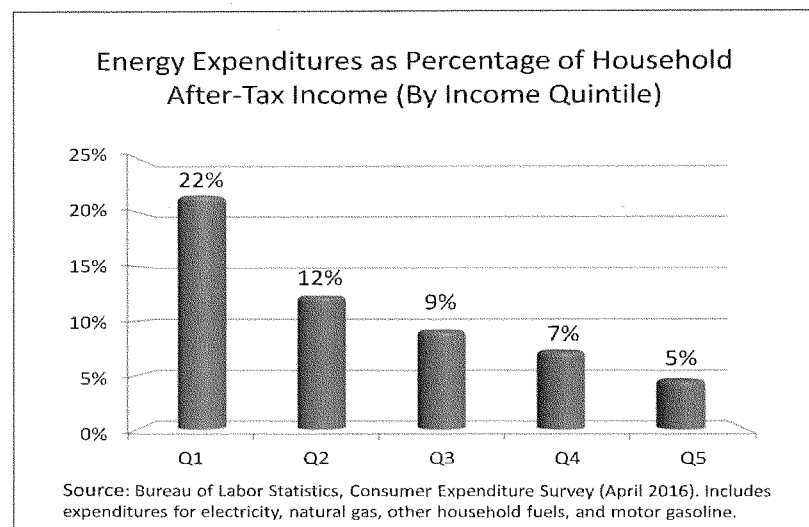
Smith’s article in *Risk Analysis* has brought attention to the fact that the PM-2.5 co-benefits that pervade EPA’s regulatory analyses for air standards are misleadingly presented because they do not reflect EPA’s own diminished confidence in risks in areas of the country with air quality that already easily meets EPA’s own public health standards. Her article cites the co-benefits in the mercury and climate impact analyses as examples. This commentary explains how the PM-2.5 co-benefits in each successive new regulatory analysis are becoming less credible, as they are increasingly affected by the inconsistencies first described by Smith. This situation can lead to false benefit-cost comparisons, particularly as EPA has been relying on health co-benefits for an increasing share of its total benefits over the last decades.

Until EPA’s method for assessing benefits in its regulatory impact analyses is made to be consistent with its own regulatory determinations, one can only expect criteria pollutant co-benefits to become even more overstated and unreliable over time. While the mercury rule impact analysis is a prime example of excessive overreliance on co-benefits, the co-benefits EPA has attributed to the regulatory analysis of the Clean Power Plan are subject to an even greater degree of overstatement.



Energy Expenditures by American Families

Energy costs consume more than one-fifth of the after-tax incomes of America's poorest families, the 25 million households in the lowest income quintile. Increased costs for residential electricity have a more regressive impact on low-income consumers than cost increases for other basic necessities including food, gasoline, housing, clothing, and health care.



June 2016

Executive Summary

This report analyzes patterns of consumer expenditures for five categories of basic household necessities by income quintile as reported by the U.S. Bureau of Labor Statistics' Consumer Expenditure Survey for the period from July 2014 to June 2015. Each income quintile represents approximately 25 million American households.

Key findings of the analysis are:

- The average after-tax income of the two lowest income quintiles, representing 51 million households, is \$19,719. This is equivalent to a take-home income of less than \$1,700 per month.
- Residential electricity and motor gasoline are the largest energy expenditures for households in all income quintiles.
- Households in the very lowest income quintile spend 22% of their after-tax income on residential utilities and gasoline, while households in the two lowest quintiles spend 17%. This compares with 5% for households in the top income quintile.
- Black and Hispanic households account for 33% of households in the two lowest income quintiles, compared with 14% in the top income quintile. Senior citizens are similarly overrepresented in the lowest income quintiles.
- Among basic necessities, increases in residential electricity costs have the most regressive impact on low-income households. Electricity expenditures, the most common monthly utility bill, are the least likely to be reduced when a family is confronted with reduced income. Decreases in household income due to unemployment or other factors are more likely to result in greater cutbacks in consumer expenditures for clothing, food and gasoline than for electricity.
- Since 2005, national average electricity prices have increased by 33% in current dollars, and by 7% in constant 2005 dollars. A portion of this increase is due to compliance costs associated with new Clean Air Act and other environmental regulations.
- The real pre-tax incomes of American households have declined across all five income quintiles since 2001. The combination of lower real family incomes and higher residential electricity prices will continue to create difficult family budget choices among lower-income families.

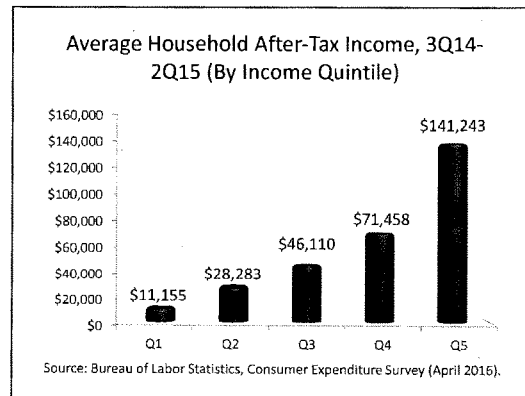
Energy Expenditures by American Families

This report examines consumer expenditures by income quintile as reported by the U.S. Bureau of Labor Statistics' Consumer Expenditure Survey for the period from July 2014 to June 2015 (3Q14-2Q15).ⁱ BLS surveys the income and expenditure patterns of American households and reports its findings by income quintile. Each income quintile represents approximately 25 million American households.

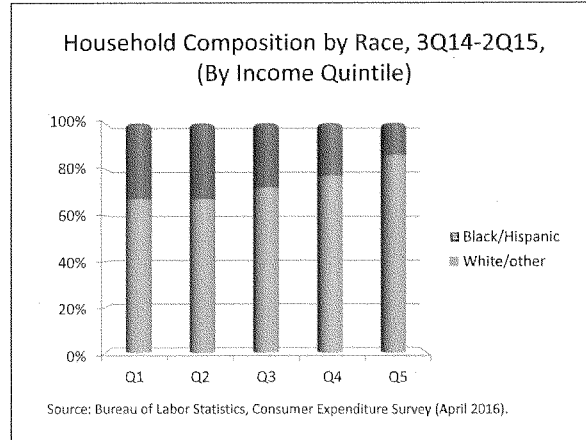
Household incomes

The BLS survey estimates that 128 million U.S. households had an average after-tax income of \$59,633 in the 3Q14-2Q15 survey period. Average income before taxes for all U.S. households, including Social Security and other forms of transfer payments, was \$68,662.

The distribution of average household incomes by income quintile is shown below. Households in the lowest income quintile had average after-tax incomes of \$11,155. Households in the second income quintile had an average after-tax income of \$28,283. The average after-tax income of the two lowest income quintiles, representing 51 million households, was \$19,719. This is equivalent to a take-home income of less than \$1,700 per month.



Black and Hispanic families are disproportionately represented among the lower income quintiles. Black and Hispanic households account for one-third of households in the two lowest income quintiles, compared with 14% in the top income quintile. Senior citizens are also overrepresented in the two lowest income quintiles. In 2014, the pre-tax median household income of senior households aged 65 or more was \$36,895, 31% below the U.S. median income of \$53,657.ⁱⁱ



The real pre-tax incomes of American households have declined across all five income quintiles since 2001, measured in constant 2014 dollars. As shown below, the largest percentage losses of income are in the two lowest income quintiles. Households in the lowest quintile lost 14% of their real income between 2001 and 2014. The largest losses of purchasing power – nearly \$3,000 – occurred in the second and third income quintiles, representing lower- and middle-income working families. These declining real incomes increase the vulnerability of low- and middle-income households to rising costs for food, energy, and other household necessities.

Average real U.S. pre-tax household incomes by income quintile,
2001-2014
(In constant 2014\$)

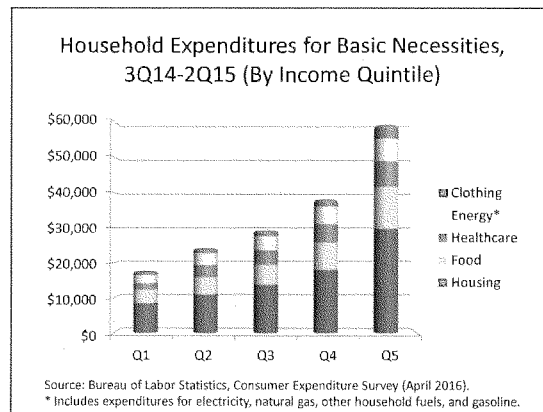
	1Q	2Q	3Q	4Q	5Q
2001	\$13,553	\$34,055	\$57,002	\$88,597	\$195,188
2014	\$11,676	\$31,087	\$54,041	\$87,834	\$194,053
% Chg	-14%	-9%	-6%	-1%	-1%
\$ Chg	(\$1,877)	(\$2,968)	(\$2,961)	(\$763)	(\$1,135)

Source: <https://www.census.gov/hhes/www/income/data/historical/household/>

Real median household income - the midpoint of the income distribution among all households - was \$53,657 in 2014, 6.5% lower than the pre-recession 2007 median, and 7.2% lower than the median household income peak (\$57,843) that occurred in 1999.ⁱⁱⁱ

Consumer expenditures

The BLS survey estimates household expenditures for all categories of expenses, from basic necessities such as food and housing to luxury items such as jewelry. The chart below shows the increasing levels of expenditures by income quintile for five categories of basic necessities: housing (rent or mortgage payments), food, energy, health care, and clothing. Energy expenditures include those for residential utilities such as electricity, heating oil and natural gas, and motor gasoline.

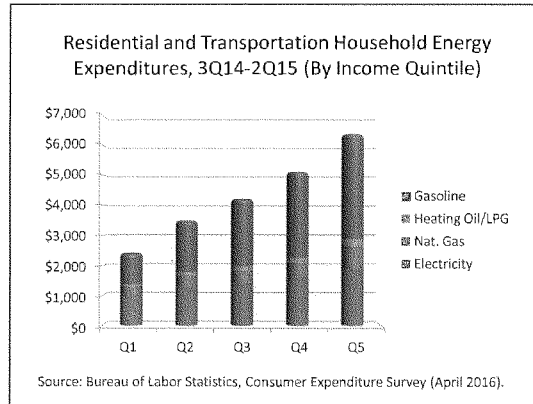


The largest expenditure category across all income quintiles is housing, followed by food. Expenditures for housing average \$16,085 for all households, compared with \$6,887 for food. Energy and health care expenditures are \$4,318 and \$4,379, respectively.

Energy expenditure patterns

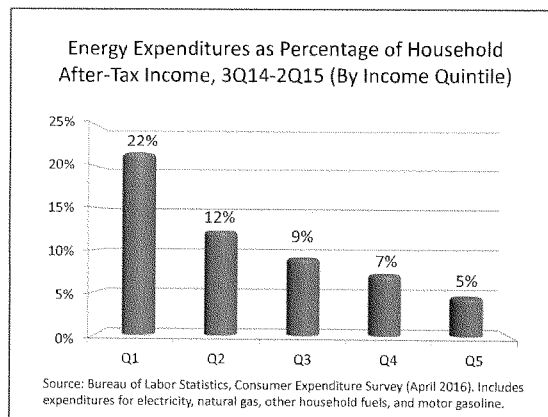
Residential electricity and motor gasoline are the largest energy expenditures for households in all income quintiles. As shown below, expenditures for motor gasoline increase rapidly with higher household income, reflecting increased numbers of vehicles and greater vehicle-miles traveled per household. The average U.S. household had 1.9 vehicles in 3Q14-2Q215. Households in the lowest income quintile had 0.9 vehicles per family, while those in the top income quintile had 2.8 vehicles per household.

Household expenditures for electricity increase gradually with higher household income due to larger residential floor space and the increased number and use of appliances and other electronic equipment.^{iv} With higher incomes, consumers also tend to substitute natural gas for electricity in home heating, and to increase the efficiency of electricity in lighting and space heating and cooling.



Energy cost impacts on family budgets

The share of after-tax income represented by expenditures for residential and transportation energy is depicted in the chart below. Households in the lowest income quintile spend 22% of their after-tax income on residential utilities and gasoline, compared with 5% for households in the top income quintile. Households in the two lowest income quintiles, representing 51 million households, spend an average of 17% of their after-tax incomes on residential energy and gasoline. On average, energy expenditures represented 7% of after-tax income for all U.S. households in Q314-Q215.



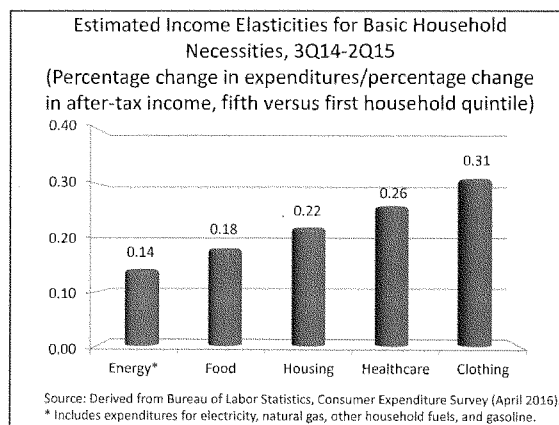
Inadequate
Energy Assistance

Low-Income

Many low-income consumers qualify for energy assistance programs such as LIHEAP, a federal block grant program that funds state energy assistance programs. LIHEAP appropriations have declined in recent years. The FY 2016 program was funded at \$3.4 billion, compared with \$5.0 billion in FY 2010.^v In FY 2010, LIHEAP provided an average benefit of \$467 per household to 8.1 million households.^{vi} Only 22% of the 37 million low-income households potentially qualified to receive benefits that year participated in the LIHEAP program.

Income and Energy Use

Among consumer expenditures for basic necessities, energy is the least sensitive to changes in household income. The chart below shows the estimated income elasticities for five basic household expenditures. Income elasticity is a measure of the relative increase in expenditures for each of the five categories of basic necessities in relation to increased household incomes. It is calculated by dividing the percentage change in expenditures for each category of basic necessities by the percentage change in average incomes between the lowest and the highest income quintiles.

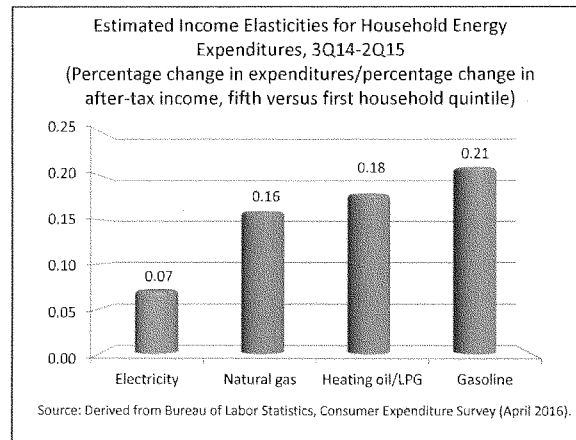


With rising household incomes, consumers tend to spend more on clothing, health care, housing, and food than on energy products and services. Similarly, when faced with reduced income, family budgets are likely to cut back expenditures for clothing to a greater extent than energy and other basic necessities.

The BLS survey reveals that residential electricity expenditures are the least sensitive to changes in income among the principal categories of energy expenditures (see chart

below.) As household incomes increase, consumers spend relatively more for heating oil, natural gas, and gasoline than for electricity.

On the other hand, decreases in household income due to unemployment or other factors are more likely to result in greater cutbacks in expenditures for gasoline or other basic necessities than for electricity. Electricity expenditures - the most common monthly utility bill - are the least likely to be reduced when a family is confronted with reduced income.



The Regressive Impact of Energy and Other Consumption Taxes

Any increase in the costs of basic household necessities serves as an effective tax on household income. The BLS Consumer Expenditure Survey provides the basis for estimating the relative regressivity of any consumption-based tax or price increase affecting basic necessities such as food or energy. A carbon tax on energy, an increase in electric prices due to government regulation, or higher sales taxes on food and clothing are examples of effective consumption-based taxes reducing available after-tax income.

The table below shows the effective reduction of after-tax household incomes by income quintile for an assumed across-the-board 10% increase in the costs of housing, food, clothing, health care, and energy. For all U.S. households, the largest impacts are in housing (2.7%) and food (1.2%), followed by energy (0.9%), health care (0.7%) and clothing (0.3%).

Impacts of Assumed 10% Increase in the Costs
of Basic Necessities as a Percentage of After-Tax Income,

by Income Quintile

Item	All H/Hs	1st Q	2d Q	3d Q	4th Q	5th Q	Q1/Q5*
Housing	2.70%	7.55%	3.83%	2.95%	2.50%	2.10%	3.6
Food	1.15%	3.44%	1.75%	1.25%	1.10%	0.85%	4.0
Health Care	0.73%	1.61%	1.22%	0.89%	0.75%	0.51%	3.1
Clothing	0.32%	0.77%	0.42%	0.31%	0.28%	0.28%	2.8
All Energy	0.72%	2.16%	1.23%	0.91%	0.72%	0.45%	4.8
Electricity	0.25%	0.94%	0.47%	0.31%	0.23%	0.14%	6.9
Heat. Oil	0.02%	0.07%	0.04%	0.03%	0.02%	0.02%	4.0
Nat. Gas	0.07%	0.22%	0.12%	0.09%	0.07%	0.05%	4.4
Gasoline	0.38%	0.93%	0.60%	0.49%	0.40%	0.25%	4.8

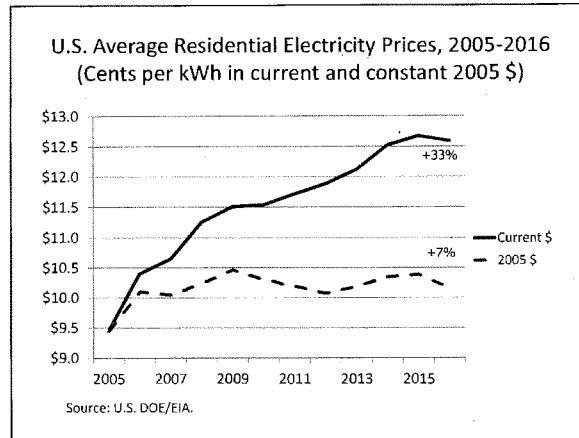
*Percentage impact on the lowest income quintile divided by the percentage impact on the highest income quintile. This factor measures the relative degree of regressivity of a 10% increase in cost for each good or service.

Source: Derived from Bureau of Labor Statistics, Consumer Expenditure Survey, 3Q14-2Q15 (April 2016).

This illustration shows that cost increases affecting energy goods and services have the most regressive impact on low-income households. Among all basic necessities, increases in residential electricity costs have the most regressive impact, followed by gasoline. Increases in the costs of food, housing, health care, and clothing all have less regressive impacts than energy cost increases.

Policy Implications

The highly regressive nature of electricity price increases, together with recent trends in household electricity prices, underscore the importance of maintaining stable and affordable electric prices for lower- and middle-income consumers. Since 2005, national average electricity prices have increased by 33% in current dollars, and by 7% in constant 2005 dollars (see chart below).



A portion of the increase in residential electricity prices since 2005 is due to the capital and operating costs associated with new emission controls to meet Clean Air Act and other environmental requirements, as well as state laws mandating the construction of renewable energy facilities. The trend toward steadily rising electricity prices is likely to continue:

"We are now in an era of rising electricity prices," said Philip Moeller, a member of the Federal Energy Regulatory Commission, who said the steady reduction in generating capacity across the nation means that prices are headed up. "If you take enough supply out of the system, the price is going to increase.

In fact, the price of electricity has already been rising over the last decade, jumping by double digits in many states, even after accounting for inflation. In California, residential electricity prices shot up 30% between 2006 and 2012, adjusted for inflation, according to Energy Department figures. Experts in the state's energy markets project the price could jump an additional 47% over the next 15 years.

The problems confronting the electricity system are the result of a wide range of forces: new federal regulations on toxic emissions, rules on greenhouse gases, state mandates for renewable power, technical problems at nuclear power plants and unpredictable price trends for natural gas.^{vii}

These diverging trends - lower real family incomes and rising residential electricity prices - will continue to create difficult family budget choices among lower-income families.

Acknowledgment – This report was prepared for ACCCE by Eugene M. Trisko, who has conducted state and national energy cost analyses periodically since 2000. Mr. Trisko is an attorney and energy economist who represents labor and industry clients. He previously served as an energy economist with Robert Nathan Associates, an attorney in the Bureau of Consumer Protection of the U.S. Federal Trade Commission, and as an expert economic witness on utility cost of capital. He may be contacted at emtrisko@earthlink.net.

End notes

ⁱ U.S. Bureau of Labor Statistics, Consumer Expenditure Survey (April 2016).

ⁱⁱ U.S. Bureau of the Census, Income and Poverty in the United States, 2014 (September 2015) at Table 1.

ⁱⁱⁱ *Id.*, at 7.

^{iv} *See*, U.S. DOE/EIA 2009 Residential Energy Consumption Survey, Table HC2.5, Structural and Geographic Characteristics of U.S. Homes, by Household Income, 2009, and Table HC3.5, Appliances in U.S. Homes, by Household Income, 2009.

^v *See*, Congressional Research Service, LIHEAP: Program and Funding (July 29, 2015).

^{vi} *Id.*, at Table 2.

^{vii} "U.S. Electricity Prices May Be Going Up for Good," The Los Angeles Times, April 25, 2014.

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371
www.science.house.gov

August 11, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy:

The Committee on Science, Space, and Technology appreciates the testimony you presented on July 9, 2015, at a hearing entitled "Examining EPA's Regulatory Overreach." The hearing examined the U.S. Environmental Protection Agency's (EPA) ongoing regulatory agenda. At the hearing, you attempted to address the concerns of Committee Members regarding recent final and proposed rulemakings initiated by the EPA. The Committee has found several instances where your responses to questions posed by Members were false and misleading. Prior to further investigative action by the Committee, we want to invite you to reflect on your testimony and provide further details. Should it be necessary to clarify or amend your testimony, then we request you do so as quickly as possible.

One of the main topics at the July 9 hearing was the transparency of EPA's regulatory agenda. Many of the Members asked questions regarding EPA's use of secret science and the access that Congress and the American people have to the data that justifies the agency's rulemakings. Ensuring that all of the data on which EPA relies for its rulemaking is publically available is an important goal of this Committee.

At the July 9, 2015, hearing, Vice Chairman Frank Lucas (R-OK) asked you whether EPA had made public the data and information used to determine certain standards in the final Waters of the United States (WOTUS) rule issued on May 27, 2015. You had the following exchange with Rep. Lucas:

Rep. Lucas: In a particular area or two that goes with the Waters of the United States rule, have you made public how the EPA developed the 4,000 feet of high tide line or the ordinary high water mark number in the final rule that was not in the proposed rule? Or for instance, the 1,500 feet within a

The Honorable Gina McCarthy
August 11, 2015
Page 2

100-year floodplain number in the final rule? Or all the waters located within 100 feet of an ordinary high water mark identified as navigable? Have those — has that information been made available in what you have provided?

Administrator McCarthy: It is available in the docket, and the good thing about attracting a million comments is, it allows us to make changes between proposal and final that are based on better science, better understanding of how the agencies have been managing these programs for years and that's what we relied on, both the knowledge and the expertise of our staff, the information that we received from the public and comments and the science that's available to us.¹

While the EPA does address the 4,000 foot limit in the Preamble of the Final Rule, it did so only vaguely and without specific reference to any scientific basis for this figure. The Preamble states:

The agencies reasonably identified the 4,000 foot boundary for these case-specific significant nexus determinations by balancing consideration of the science and the agencies' expertise and experience in making significant nexus determinations with the goal of providing clarity to the public while protecting the environment and public health. The agencies' experience has shown that the vast majority of waters where a significant nexus has been found, and which are therefore important to protect to achieve the goals of the Act, are located within the 4,000 foot boundary.²

The Committee understands that EPA refers to the 4,000 foot limit in the Economic Analysis of the Final Rule:

The agencies have determined that the vast majority of the nation's water features are located within 4,000 feet of a covered tributary, traditional navigable water, interstate water, or territorial sea. We believe, therefore, that very few waters will be located outside 4,000 feet and within a 100-year floodplain.³

However, EPA's determination of the 4,000 foot limit does not rely on peer reviewed science nor on publically available Scientific Advisory Board (SAB) determinations. Clearly, EPA's determination relies upon some other analysis that is not public in the docket.

Furthermore, internal memoranda sent by Major General Peabody at the U.S. Army Corps of Engineers (Corps) to Assistant Secretary Jo Ellen Darcy, concur with the notion that

¹ *Examining EPA's Regulatory Overreach: Hearing Before the H. Comm. on Science, Space, and Technology*, 114th Cong. (2015).

² Clean Water Rule: Definition of "Waters of the United States"; Final Rule, 80 Fed. Reg. 37089, June 29, 2015.

³ U.S. EPA and U.S. Army Corps of Engineers, Economic Analysis of the EPA-Army Clean Water Rule, May 20, 2015.

The Honorable Gina McCarthy
 August 11, 2015
 Page 3

EPA has not provided any scientific or legal justification for the figures outlined in Mr. Lucas' questioning. In an April 24, 2015, memorandum, the Corps asserts that EPA provided no scientific basis for the 4,000 foot limit listed in the final rule. Moreover, the Corps states very clearly that its belief is that the number is entirely arbitrary. The Corps' memoranda states,

The arbitrary nature of the 4000-foot cutoff of jurisdiction is demonstrated by the fact that EPA staff engaged in drafting the rule told Corps staff during a conference call in March 2015 that EPA was going to cut off CWA jurisdiction at a distance of 5000 feet from the [ordinary high water mark] of traditional navigable waters, interstate waters, territorial seas, impoundments, or tributaries. Then, three days later, EPA staff changed its position and decided to cut off CWA jurisdiction at the narrower 4000-foot limit from an OHWM. EPA staff has never provided any scientific support or justification for either a 5000-foot or 4000-foot cut-off. Both distances are arbitrary and either limitation would be very difficult to defend in the federal courts when the rule is challenged because neither limitation on CWA jurisdiction is supported by science or field-based evidence.⁴

Additionally, the Army Corps raised concerns for the lack of scientific basis regarding the definition of neighboring all water bodies within 1500 feet of an ordinary high water mark, so long as the water body is located within a 100-year floodplain. The Corps states,

The 1500-foot limitation is not supported by science or law and this is legally vulnerable. The Corps has advocated the more scientifically and legally defensible distance of 300 feet for declaring by rule that all neighboring water bodies are jurisdictional, based on the Corps experience in implementing the CWA Section 404 program and performing the majority of jurisdictional determinations under the CWA.⁵

Your statement that the information and data requested in Mr. Lucas' question was publically available in the EPA docket was false and misleading. Based on the Corps' memorandum, it is apparent that the figures outlined in EPA's final WOTUS rule were completely arbitrary and not based on any science. These numbers are neither mentioned in the Connectivity Report nor in the SAB documents. In fact, EPA never had any scientific justification for these figures, so it could not provide them in the docket for the public to review nor could it provide them to the Corps, the co-agency charged with promulgating the WOTUS rule. The lack of scientific justification and lack of appropriate collaboration with the Corps on the final rule calls into question the legality of this rule. Moreover, the public never had an opportunity to provide comment on the validity of these distances in the proposed rule as they appeared only in the final rule.

⁴ Memorandum, from Lance Woods, Ass. Chief Counsel, Env't'l Law and Regulatory Programs, U.S. Army Corps of Engineers to Major General John Peabody, Dep. Commanding General for Civil and Emergency Operations, U.S. Army Corps of Engineers, Apr. 24, 2015.

⁵ Memorandum, from Lance Woods, Ass. Chief Counsel, Env't'l Law and Regulatory Programs, U.S. Army Corps of Engineers to Major General John Peabody, Dep. Commanding General for Civil and Emergency Operations, U.S. Army Corps of Engineers, Apr. 24, 2015.

The Honorable Gina McCarthy
 August 11, 2015
 Page 4

Representative Bill Posey (R-FL) raised concerns about the ability of states to regulate background ozone, which would put certain areas into non-attainment under EPA's proposed National Ambient Air Quality Standards (NAAQS) for ozone. You had the following exchange with Rep Posey:

Rep. Posey: Another Florida Department of Environmental Protection report states, EPA also should consider whether natural background concentrations would preclude compliance with the EPA's proposed standards in certain geographic areas. For example, EPA estimates that 70 to 80 percent of the seasonal mean ozone levels in Florida are attributed to background contributions. And so my question is, how could they comply with the new requirement of 65 to 70 [ppb] if nature gives them 70 to 80 [percent] for a start?

Administrator McCarthy: Well, Congressman, let me assure you that states are not held responsible for reducing emissions that are not in their control. The Clean Air Act is very clear about that.⁶

Your unequivocal statement that states would not be held responsible for reducing background ozone contravenes prior statements by the EPA. While the Clean Air Act (CAA) may provide certain exclusions for exceedances of background ozone for exceptional events, international transport, and in rural transport areas, EPA believes that "[i]n no case does the CAA authorize a blanket exclusion from the basic application of an air quality management regime because an area is significantly impacted by background [ozone]."⁷ Furthermore, EPA has recognized that the ability of states to gain exclusions for exceedances are "[not] completely burden-free, meaning they all require some level of assessment or demonstration by a state and/or EPA to legally invoke."⁸

Moreover, EPA has stated, "For a prospective standard of 70 ppb, the EPA does not believe that background [ozone] would create significant implementation-related challenges at locations through the U.S. and prevent attainment of NAAQS."⁹ This statement and your testimony that the CAA provides instant relief to states for background ozone does not take seriously the concerns raised by many states about regulating background ozone levels.

According to a recent report by the Association of Air Pollution Control Agencies, a majority of states raised concerns to EPA about the achievability of ozone attainment under the

⁶ *Examining EPA's Regulatory Overreach: Hearing Before the H. Comm. on Science, Space, and Technology*, 114th Cong. (2015).

⁷ National Ambient Air Quality Standards for Ozone; Proposed Rule, 79 Fed. Reg. 75383, Dec. 17, 2014.

⁸ *Id.*

⁹ *Id.* at 75382.

The Honorable Gina McCarthy
 August 11, 2015
 Page 5

proposed rule due to background ozone and the ability of states to obtain relief from attainment under the CAA due to background ozone.¹⁰

Your statement before the Committee that states would not be held responsible for background ozone is false and misleading. You failed to mention that states with high levels of background ozone seeking relief from achieving attainment are confronted with yet another regulatory regime that is at the discretion of the EPA. Moreover, you failed to assert that EPA believes that background ozone levels would not present an issue for states with an ozone standard set at 70 ppb. Your testimony misleads the states about their obligations under the proposed ozone rule.

With further regard to the EPA's justification for the proposed ozone NAAQS rule, Representative Ralph Abraham (R-LA) asked you to comment on a chart depicting that asthma rates in the United States have increased despite decreasing levels of ozone. You had the following exchange with Rep. Abraham:

Rep. Abraham: And if you look at the slide, Ms. McCarthy, you see that asthma rates have dramatically increased, and this is despite decreasing ozone. So I guess I would ask for your comment on that.

Administrator McCarthy: Well, I don't think that the scientists at this point are saying that asthma is caused by ozone . . . The issue is that it's exacerbated.

While the Committee agrees with your assertion that asthma is not caused by ozone, your statement does not appear to be consistent with past assertions by EPA. For example, in EPA's 2013 Integrated Science Assessment of Ozone and Related Photochemical Oxidants, one of the conclusions of the report is that "there is likely to be a causal relationship between long-term exposure to [ozone] and respiratory effects [which includes new-onset asthma]."¹¹

Non-governmental organizations that support EPA's rule have also latched on to the notion that ozone causes asthma. A press release by the Sierra Club, supporters of the ozone NAAQS rule, continues the false narrative that ozone causes asthma, stating in a quote by Dr. Frank Rosenthal, an Associate Professor of Occupational and Environmental Health Science at Purdue University, "[t]he effect of ozone exposure in both causing asthma and bringing on asthma attack in children, even at relatively low levels, has been well documented."¹²

¹⁰ Assoc. of Air Pollution Control Agencies, State Environmental Agency Perspective on Background Ozone & Regulatory Relief, June 2015, available at http://www.csg.org/aapca_site/documents/AAPCASurvey-StateEnvironmentalAgencyPerspectivesonBackgroundOzoneandRegulatoryRelief-June201.pdf

¹¹ U.S. EPA, Integrated Science Assessment for Ozone and Related Photochemical Oxidants, Feb. 2013.

¹² Press Release, Sierra Club, *Indiana Doctors Criticize Senate-Adopted Resolution that Condemns New Clean Air Protections*, Apr. 15, 2015, available at <http://content.sierraclub.org/press-releases/2015/04/indiana-doctors-criticize-senate-adopted-resolution-condemns-new-clean-air>.

The Honorable Gina McCarthy
 August 11, 2015
 Page 6

EPA's doublespeak on whether ozone causes asthma is one of the most troubling aspects of the justification for the proposed ozone NAAQS rule. That the agency responsible for providing accurate and unbiased data on its rulemakings would continue to change its position on the alleged purpose of the ozone NAAQS rule calls into question the necessity for this proposed rule. I urge you to clarify whether EPA's position is that there is no correlation between ozone and new cases of asthma, or retract the statement you made at the hearing as inaccurate. If the latter, and EPA's position is that ozone does in fact cause new cases of asthma, please explain why asthma rates are increasing as ozone is decreasing – which was the original question posed to you by Rep. Abraham.

Subcommittee on Environment Chairman Jim Bridenstine (R-OK) and Representative Randy Hultgren (R-IL) both raised concerns with you regarding transportation conformity penalties for non-compliance with EPA regulations. You had the following exchange with Rep. Bridenstine:

Rep. Bridenstine: It is true that cities, municipalities, States can lose their Department of Transportation funds if not in compliance with the EPA. That is absolutely true. Do you agree with that?

Administrator McCarthy: They can.

Rep. Bridenstine: They can. And what that means is that if they can, that means they're being bullied. This is federal bullying and this is exactly what my constituents in the State of Oklahoma are absolutely – they are abhorred by this kind of federal bullying saying that you're going to lose your Department of Transportation funds if you don't comply with what an unelected, you know, government bureaucrat tells you to do. They are abhorred by that. You can argue but they are abhorred by that.

Administrator McCarthy: That is not rulemaking. That is in the law and it's never, ever happened.

Your statement was unequivocal that transportation penalties have never been levied for noncompliance with EPA regulations. However, it is not accurate that the sanctions have never happened. According to the Federal Highway Administration, EPA has imposed highway sanctions 13 times in the past 20 years.¹³ Although these measures seem to be swiftly dealt with by localities to prevent further detriment, it is clear that EPA has this authority and will not hesitate to use it in order to exact economic pain on the American people.

Additionally, EPA has imposed "conformity lapse" penalties in situations where a local plan has not sufficiently detailed how emissions will be offset with the construction of new

¹³ Federal Highway Administration, U.S. DOT, Clean Air Sanctions, *available at* http://www.fhwa.dot.gov/environment/air_quality/highway_sanctions/sanctionselock.cfm (last visited Aug. 4, 2015).

The Honorable Gina McCarthy
August 11, 2015
Page 7

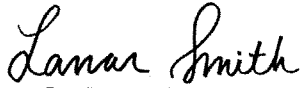
roads. The city of Atlanta, Georgia had transportation funds cut off for two years as a result of EPA's conformity lapse penalties in the late 1990's.¹⁴ Enacting EPA's more stringent proposed ozone rule will only result in even more instances of the agency imposing these strict transportation penalties on localities. We urge you to revisit your statements regarding EPA's use of transportation conformity in order to impose its regulatory agenda.

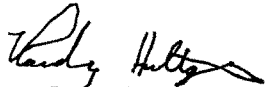
Providing false or misleading testimony to Congress is a serious matter. Witnesses who purposely give false or misleading testimony during a congressional hearing may be subject to criminal liability under Section 1001 of Title 18 of the U.S. Code, which prohibits "knowingly and willfully" making materially false statements to Congress. With that in mind, we write to request that you correct the record and to implore you to be truthful with the American public about matters related to EPA's regulatory agenda going forward.

The Committee on Science, Space, and Technology has jurisdiction over environmental and scientific programs and "shall review and study on a continuing basis laws, programs, and Government activities" as set forth in House Rule X.

If you have any questions about this request, please contact Joseph Brazauskas or Richard Yamada of the Science, Space, and Technology Committee staff at 202-225-6371. Thank you for your attention to this matter.

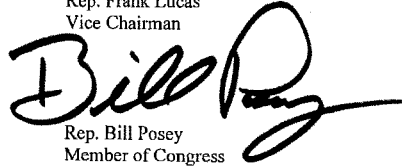
Sincerely,

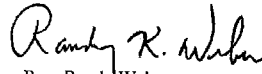

Rep. Lamar Smith
Chairman


Rep. Randy Hultgren
Member of Congress


Rep. Jim Bridenstine
Chairman
Subcommittee on Environment


Rep. Frank Lucas
Vice Chairman


Rep. Bill Posey
Member of Congress

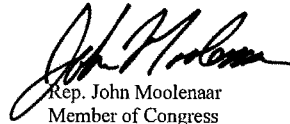

Rep. Randy Weber
Chairman
Subcommittee on Energy

¹⁴ James M. Shrouds, *Atlanta 'Conforms' to Clean Air Requirements*, Public Roads, U.S. DOT, Sept. 2000 available at <https://www.fhwa.dot.gov/publications/publicroads/00septoct/atlanta.cfm>.

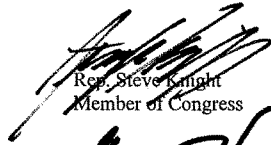
The Honorable Gina McCarthy
August 11, 2015
Page 8



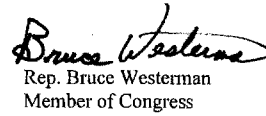
Rep. Bill Johnson
Member of Congress



Rep. John Moolenaar
Member of Congress



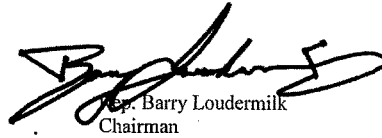
Rep. Steve Knight
Member of Congress



Rep. Bruce Westerman
Member of Congress



Rep. Gary Palmer
Member of Congress



Rep. Barry Loudermilk
Chairman
Subcommittee on Oversight



Rep. Ralph Lee Abraham
Member of Congress

cc: The Honorable Eddie Bernice Johnson, Ranking Minority Member, House Committee on
Science, Space and Technology



June 21, 2016

Tom Salomone
2016 President

Dale A. Simon
Chief Executive Officer

GOVERNMENT AFFAIRS DIVISION

Jersey Giovannicello, Senior Vice President
Gary Weaver, Vice President
Joe Ventrone, Vice President & Deputy Chief
for Regulatory Affairs
Scott Reiter, Vice President
Jamie Gregory, Deputy Chief Lobbyist

500 New Jersey Ave., NW
Washington, DC 20001-2020
Ph: 202-383-1194; Fax: 202-383-7580
www.NAR.org

The Honorable Lamar Smith
Chairman
House Committee on Science, Space and
Technology
2409 Rayburn House Office Building
Washington, DC 20515

The Honorable Eddie Bernice Johnson
Ranking Member
House Committee on Science, Space and
Technology
2468 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Smith and Ranking Member Johnson:

The National Association of REALTORS® (NAR) is pleased that the House Committee on Science, Space and Technology is holding a hearing on "Ensuring Sound Science at Environmental Protection Agency (EPA)." Using the best available science for developing rules is a fundamental pillar of the federal regulatory process. If sound science is not used by federal agencies, then the entire rulemaking process will lack credibility and increase market uncertainty.

For NAR members, one issue that has caused concern has been the Waters of the U.S. (WOTUS) rulemaking by the U.S. EPA and the Army Corps of Engineers (USACE) to redefine which U.S. water bodies are regulated under the Clean Water Act. NAR is deeply concerned this rule will impede development opportunities and hurt property rights, with no improvement in water quality.

NAR is also concerned about the science that underpins the WOTUS rule and how the science was used in the process. EPA's report, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (Synthesis Report)* purports to provide the scientific rationale for a sweeping revision of the Clean Water Act. In reality, this scientific assessment contained numerous flaws, including:

- Provided no science to make distinctions between significant connections and non-significant connections;
- Did not account for factors of variability in connectivity, such as climate, stream size, habitat, or the watershed;
- Made the unsupported conclusion that any wetland or water within a riparian area or a floodplain has a significant connection to downstream waters.

In addition to the scientific irregularities, NAR is also concerned about how the science was used in the process. EPA's own Science Advisory Board (SAB) convened a panel to review the Synthesis Report and solicited public comments to be reviewed by the panel. On the same day of that panel, EPA announced that it had sent a proposed rule to the Office of Management and Budget (OMB) for interagency review, thereby obviating the ability to integrate any comments made by the public or the peer review into the Synthesis Report.

It is clear that the EPA did not use the best available science to develop the WOTUS rule. Instead, the agency developed a rule prematurely, then created a flimsy review of old science and did not take into account the independent scientific input of experts or of the public.

There is currently a nationwide judicial stay on implementation of the rule. If the stay is lifted and the EPA implements the WOTUS rule, its impacts will be far-reaching. For this reason, NAR urges the Committee to work with the House leadership to pass legislation that would withdraw the rule before it undermines the nation's economy and the rights of property owners.

Sincerely,

Tom Salomone
2016 President, National Association of REALTORS®

cc: House Committee on Science, Space and Technology

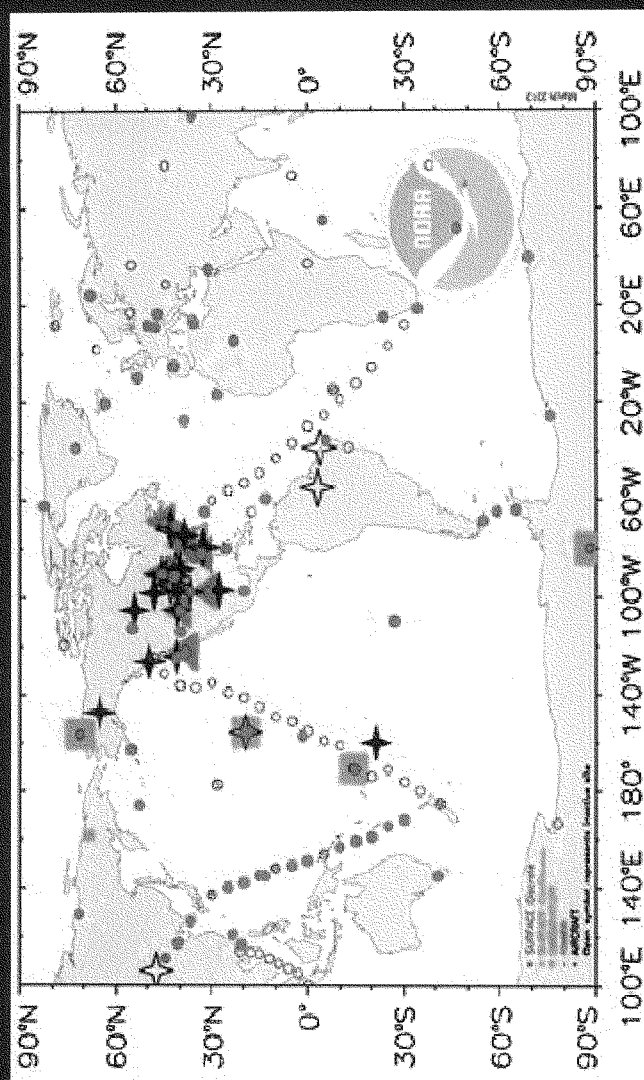


REALTOR® is a registered collective membership mark which may be used only by real estate professionals who are members of the NATIONAL ASSOCIATION OF REALTORS® and subscribe to its strict Code of Ethics.

What have we learned from three
decades of high-quality
atmospheric CH₄
measurements?

NOAA Global Monitoring Division
NOAA Earth System Research Laboratory
Boulder, Colorado USA
Presented by Dr. Russ Schnell, June 9, 2016

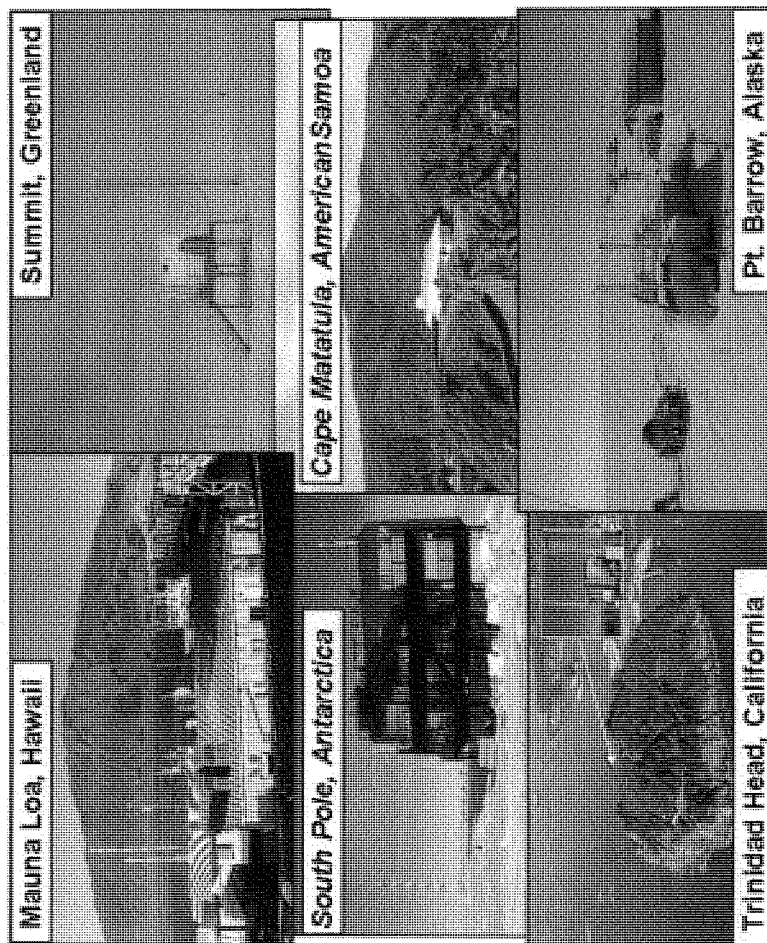
GMD Global Air Sampling Network



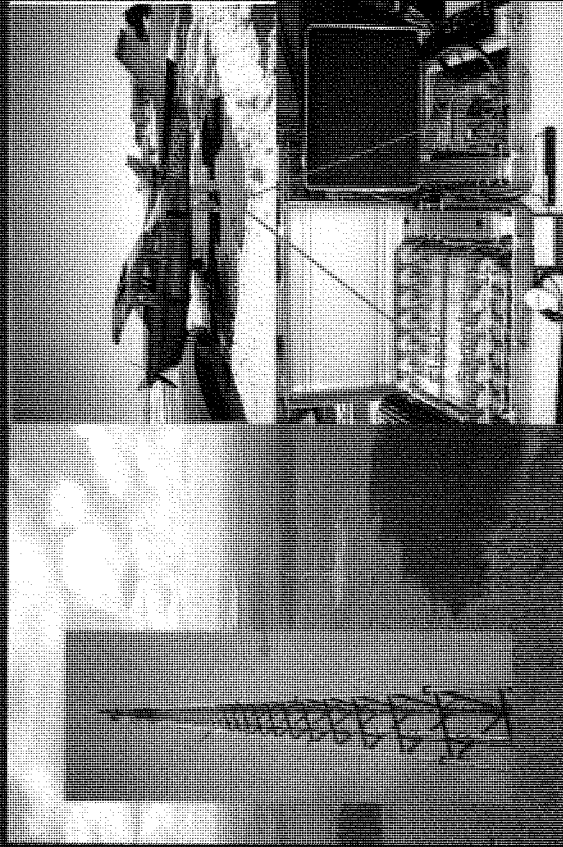
*Weekly samples *Portable samples *Analyzed by GC/FID

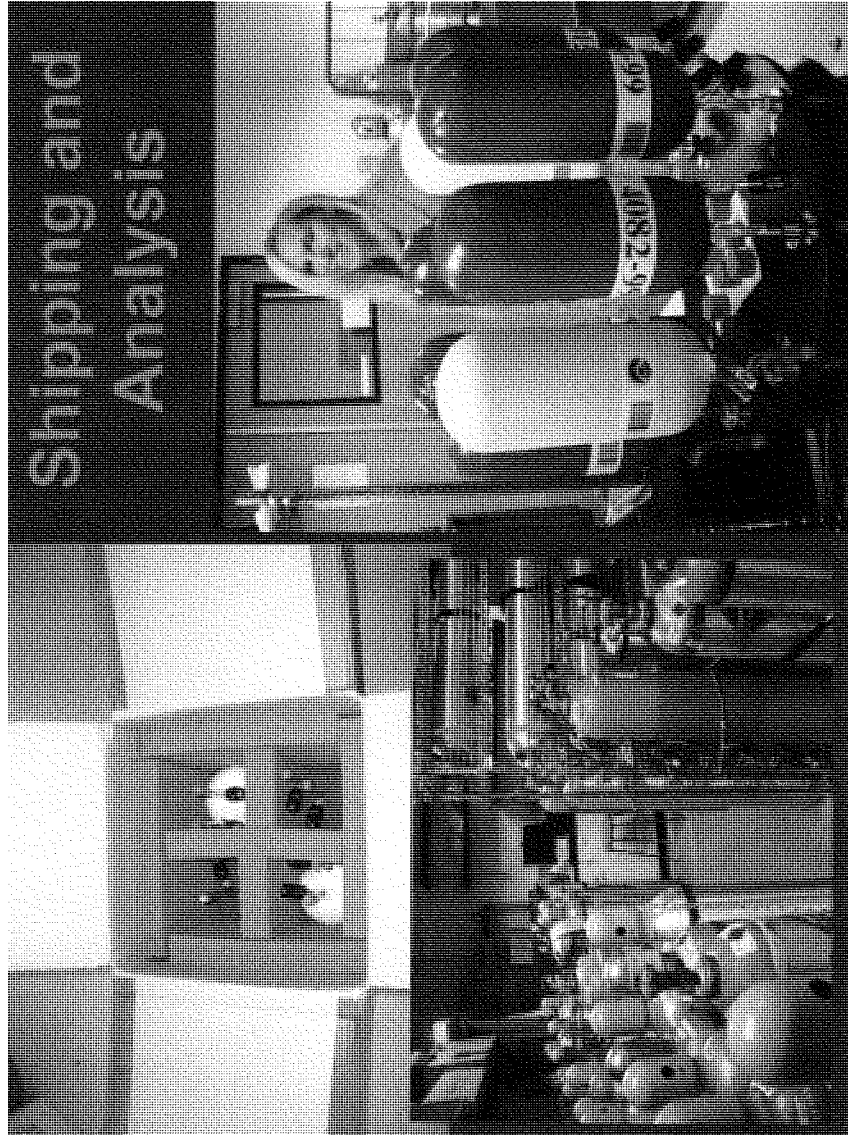
*www.esrl.noaa.gov/gmd/ccgg/iadv/

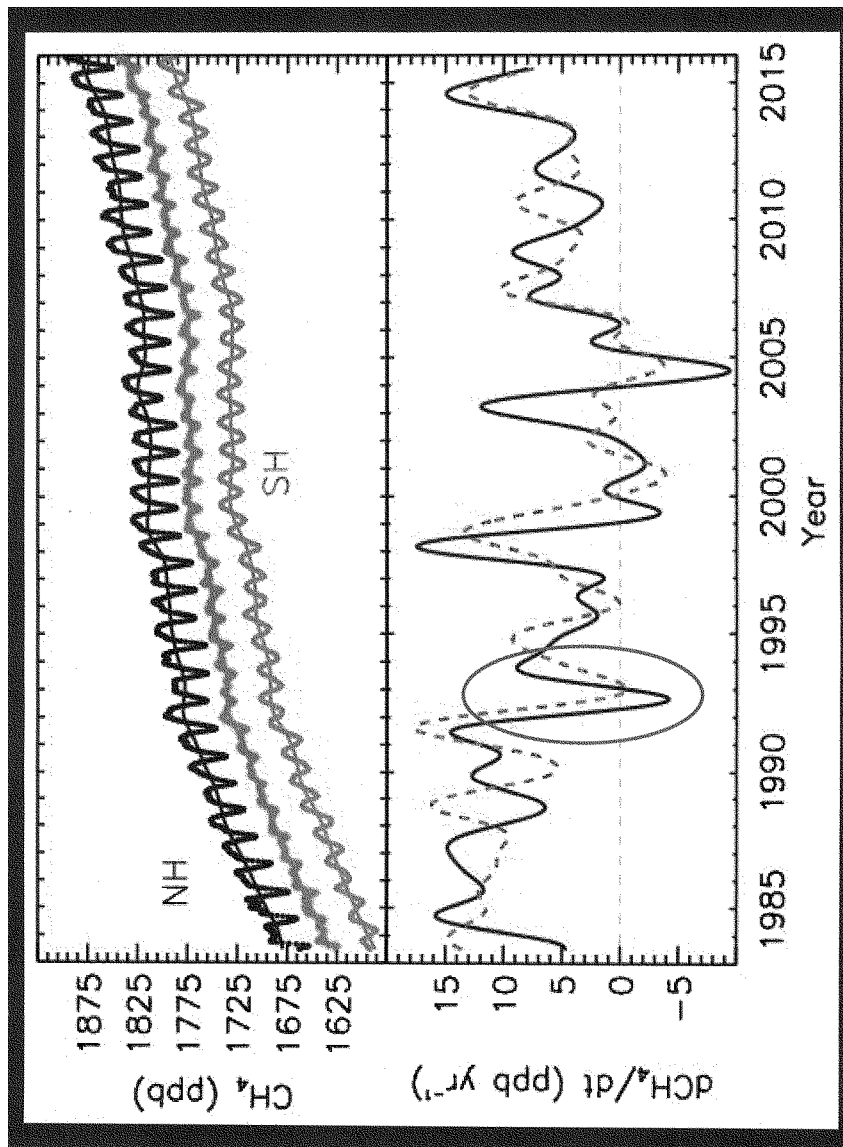
Atmospheric Baseline Observatories



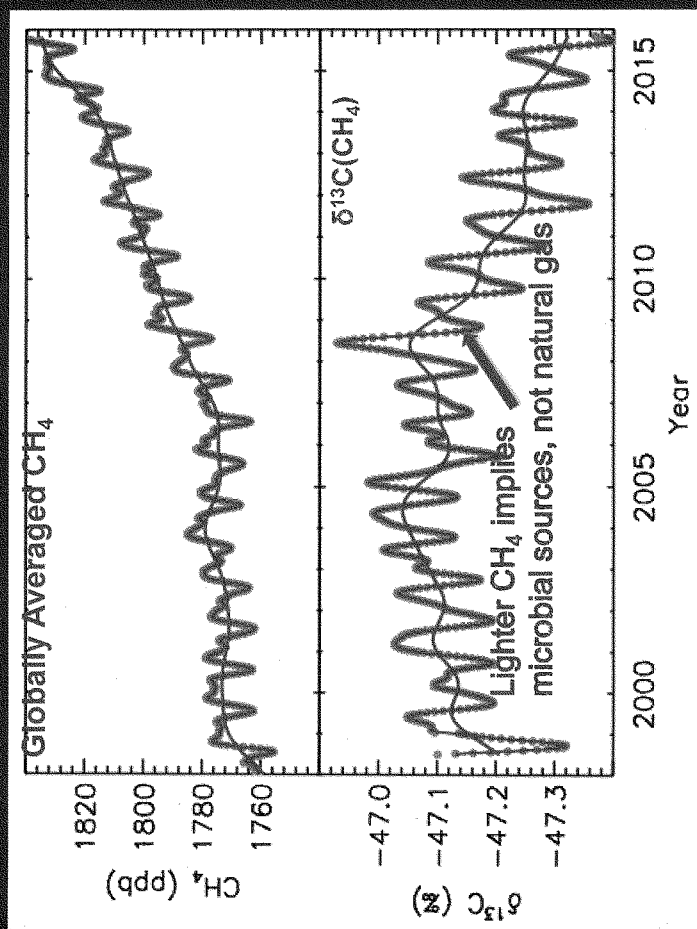
CMDL Measures Carbon Cycle Gases From Tall Towers and Light Aircraft







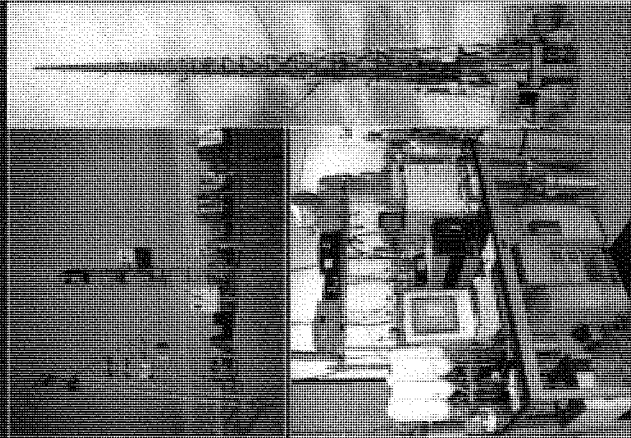
CH₄: What is Causing the Recent Global Increase?



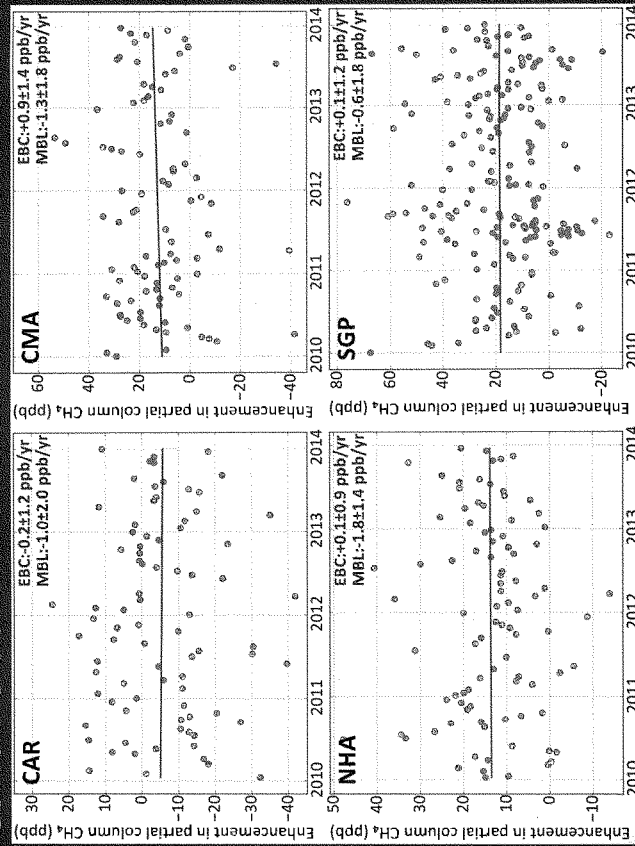


ESRL Oil/Gas Research – How? /

NOAA employs
a unique
combination of
observational
platforms,
analysis
approaches
and human
expertise.



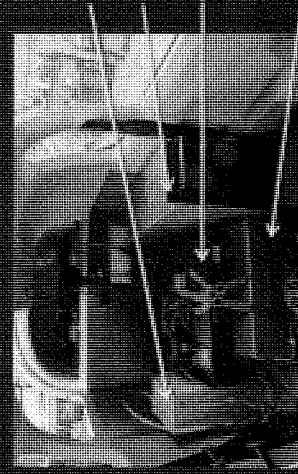
Partial Column Average CH₄ from Aircraft Profiles: No Significant Relative Trends!



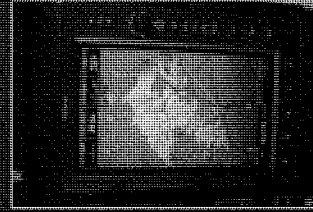
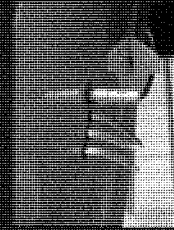
EBC – empirical boundary curtain (interpolated aircraft profiles)
MBL – marine boundary layer surface

Instrumentation: NOAA Light Aircraft

- In situ CH₄ and Ethane: natural gas marker
- In situ CO₂ (CO): combustion markers
- In situ NO₂: combustion marker, ozone precursors
- In situ O₃ (two instruments)
- Discrete air samples: CH₄, CO, CO₂, C₂-C₈ alkanes, aromatics
- Daily operations: 2 people on site, 1-2 remotely

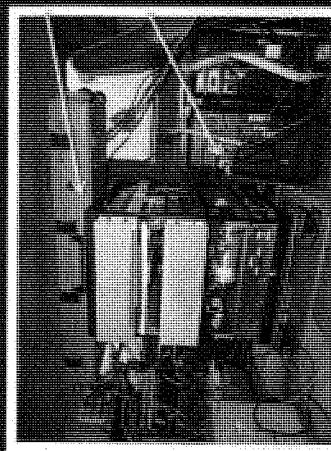
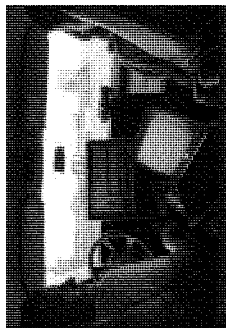


• Pictures: Sarah Wilson



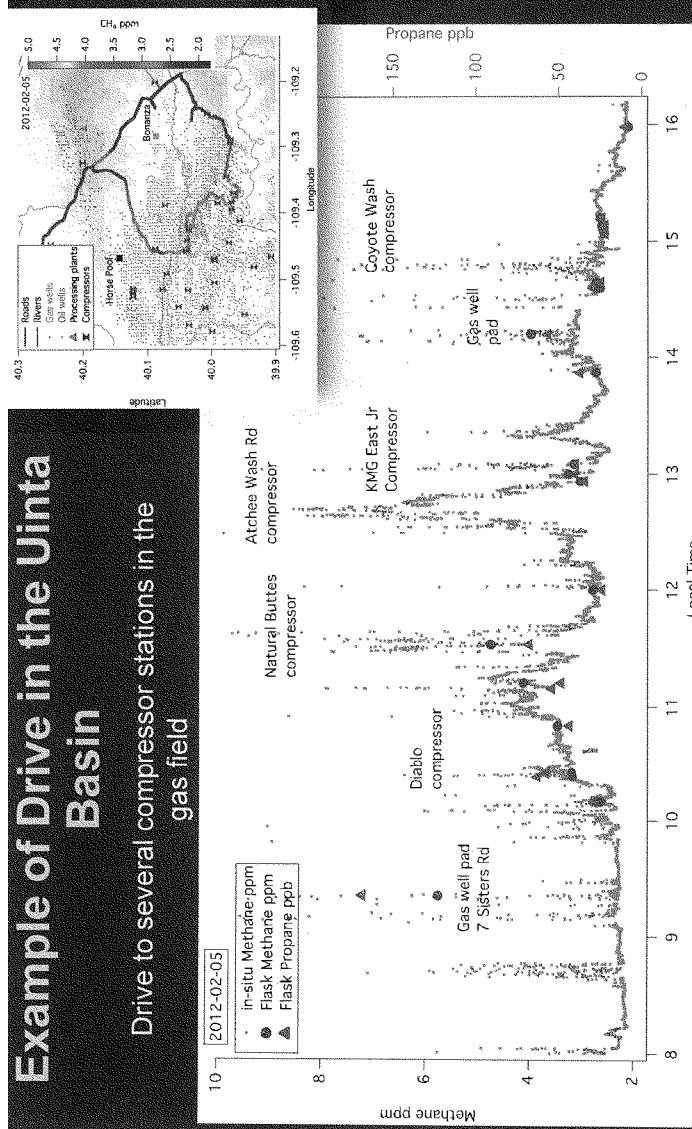
NOAA Mobile Lab

- In situ CH₄ and Ethane: natural gas markers
- In situ CO₂, CO: combustion markers
- In situ NO/NO₂: combustion markers, ozone precursors
- In situ VOCs (aromatics, oxygenates): ozone precursors
- In situ O₃ (two instruments)
- Discrete air samples: CH₄, CO, CO₂, C₂-C₈ alkanes, aromatics
- Daily operations: 3-5 people on site



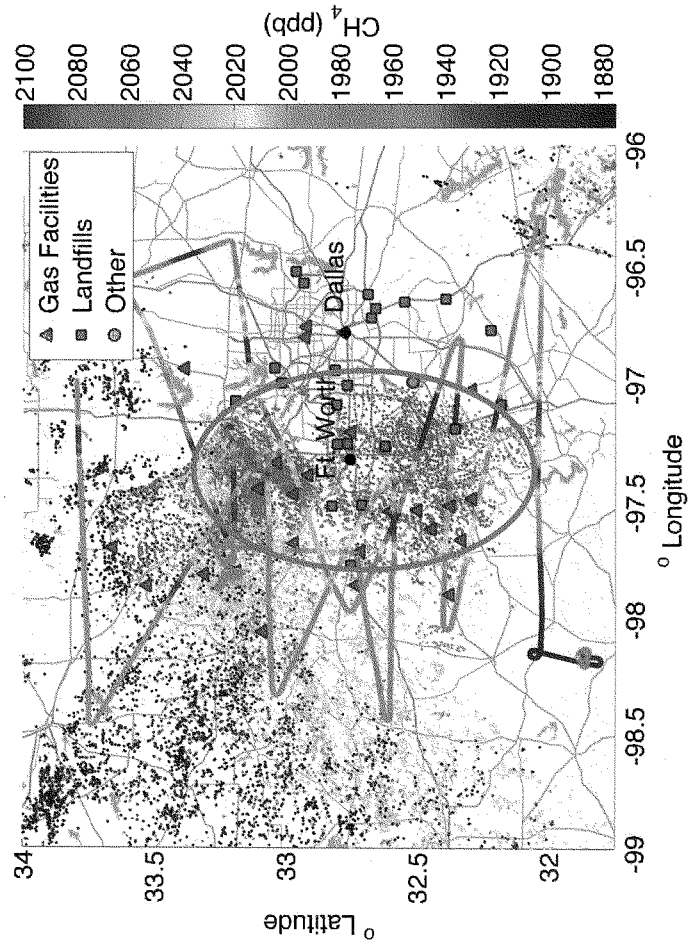
Example of Drive in the Uinta Basin

Drive to several compressor stations in the gas field



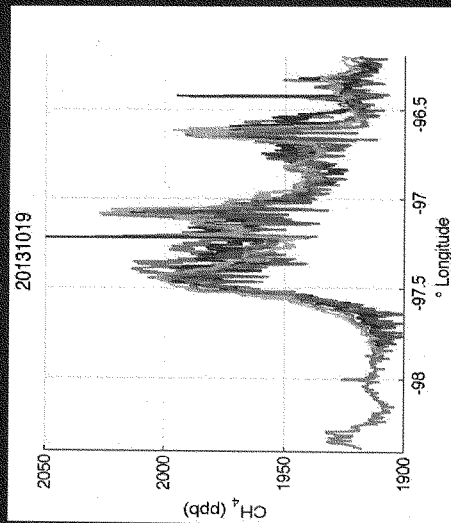
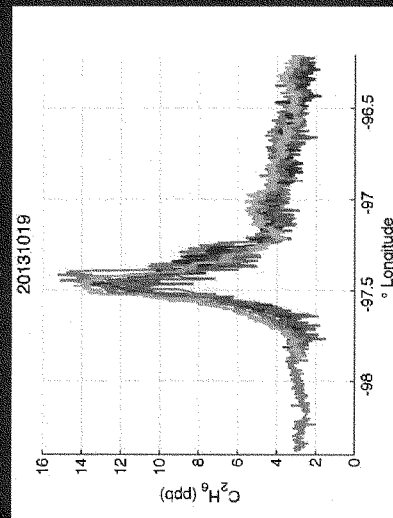
Fugitive emissions of natural gas are substantial at several locations in the oil & gas fields.

Barnett, Oct 17, 2014



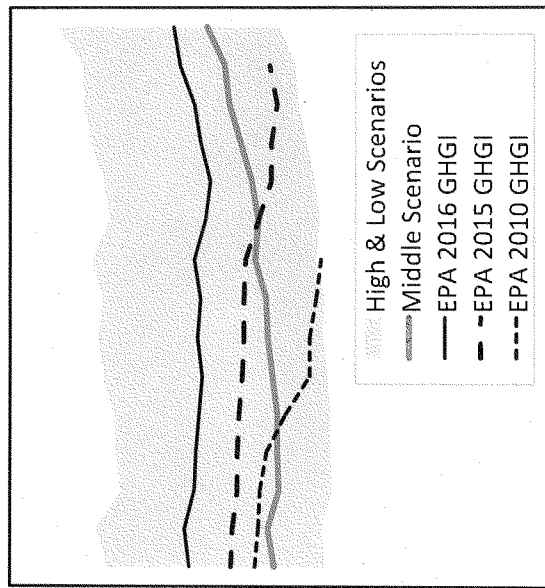
Barnett, Texas: 19 Oct 2013

5 downwind transects

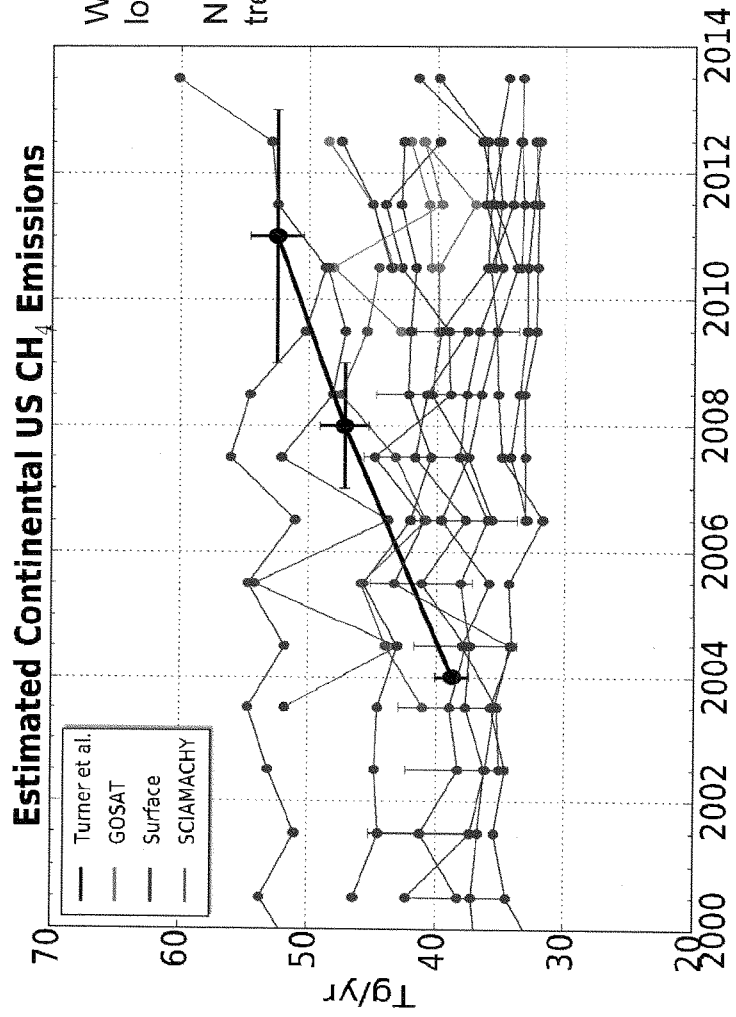


Methane (left) and ethane (right) in five separate downwind transects show consistency of plume. They also indicate that a portion of the methane enhancement does not correspond with an ethane enhancement.

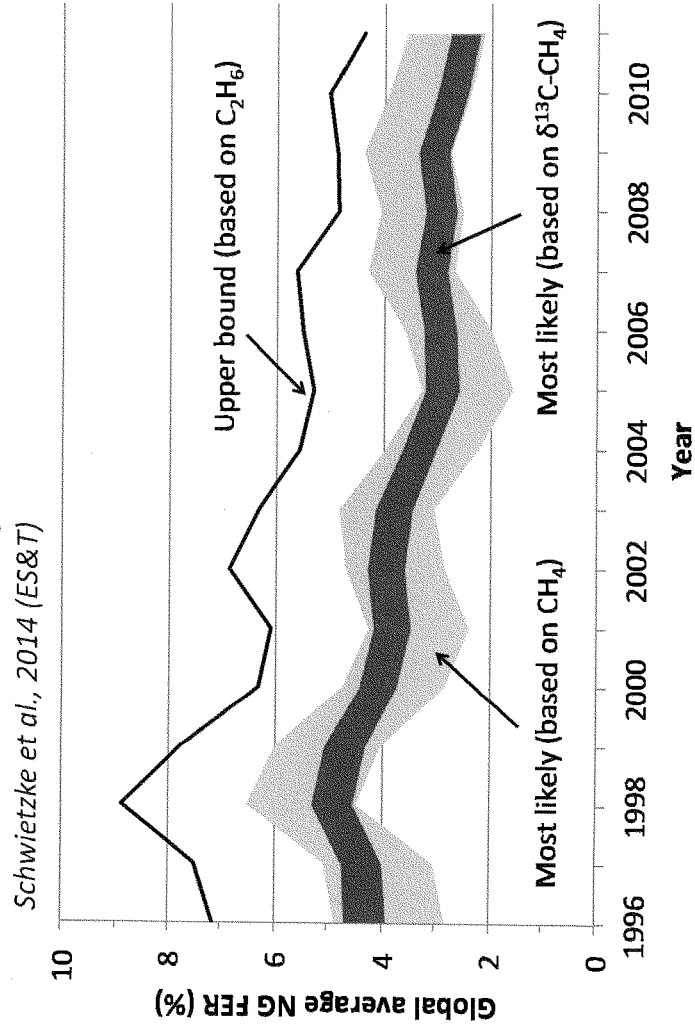
Top-down studies: critical to evaluate inventory emission estimates

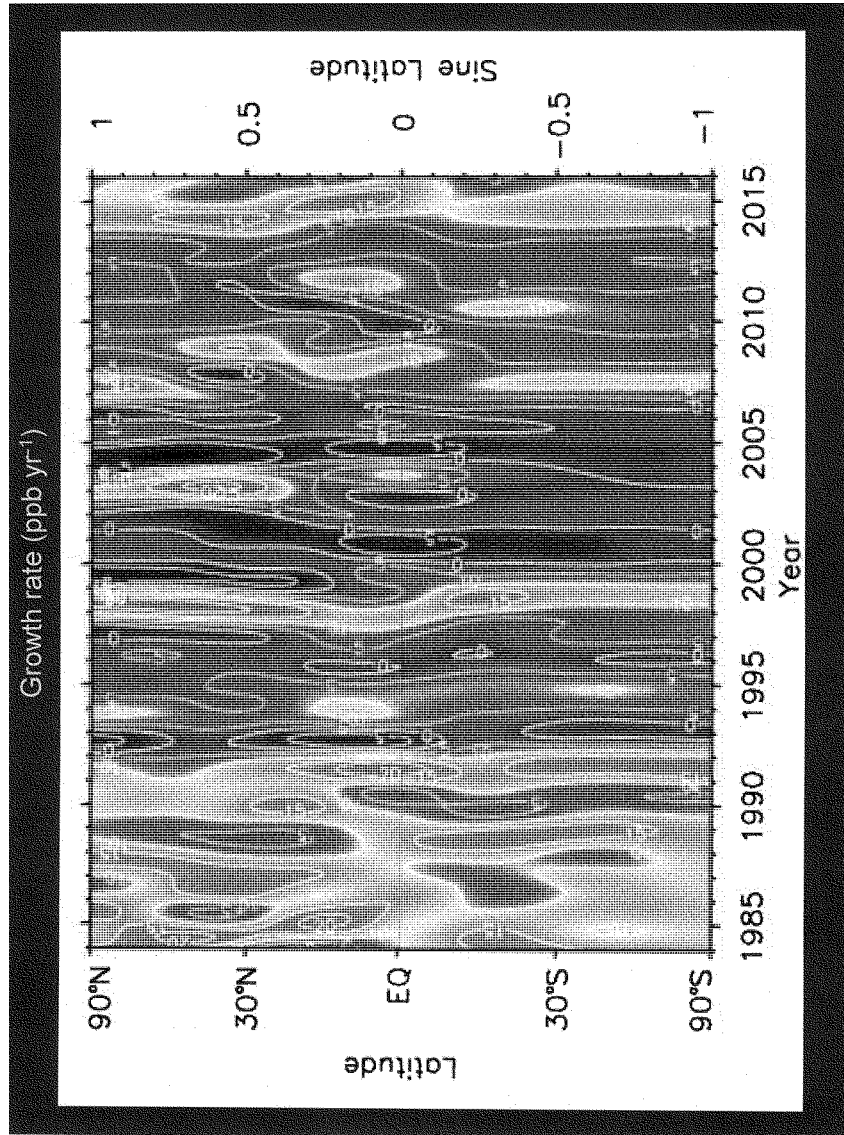


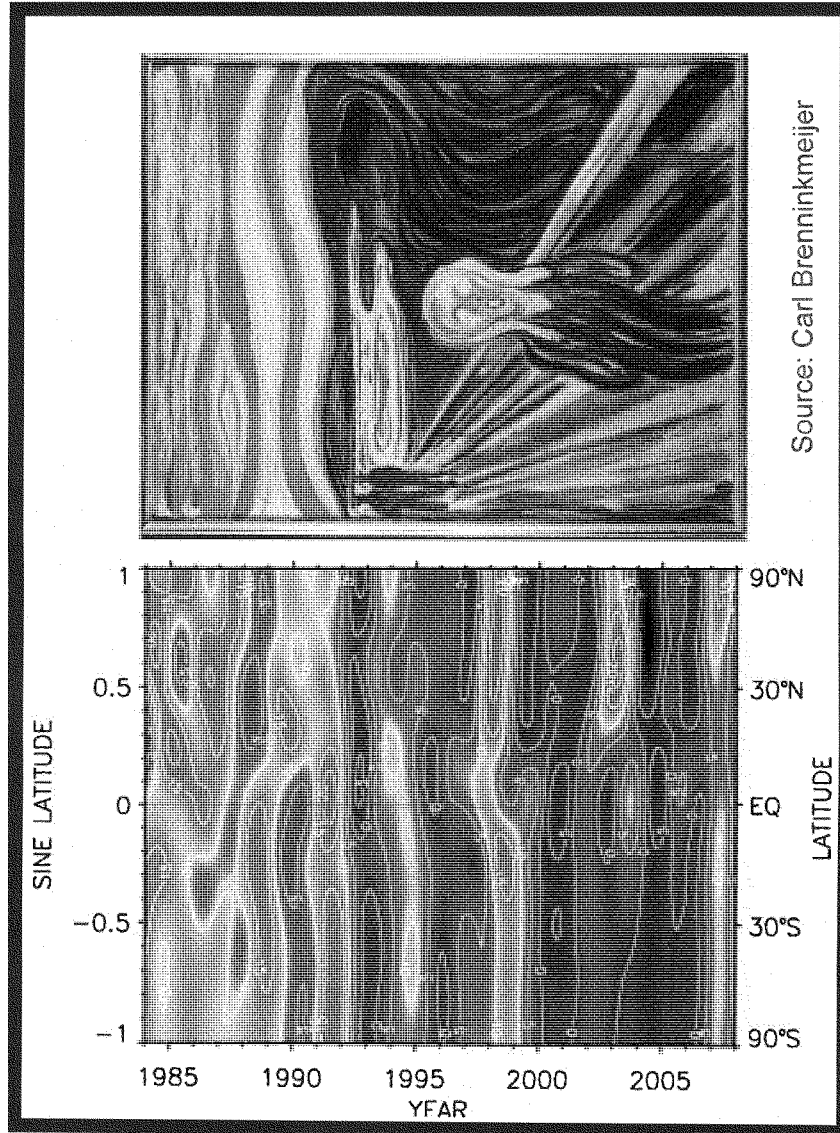
What Do Time-Dependent Inversions Show?



O&G efficiency (“leak rate”) improving globally over time







Conclusions

- In situ observations, atmospheric inversions, and best available bottom-up information do not support a large, recent increase in US CH₄ emissions.
- We have not detected changing US anthropogenic CH₄ emissions from space.
- There is strong evidence that the FF sector is not driving the recent global CH₄ increase.
- Probable cause of the CH₄ increase: Tropical wetlands
- Policy relevant work needs to be impeccable.

MI

ISSUES
2016

Who Pays the Bill for the Obama Climate Agenda?

The Claim:

"[I]f the message is somehow we're going to ignore jobs and growth simply to address climate change, I don't think anybody is going to go for that. I won't go for that... [W]e're still trying to debate whether we can just make sure that middle-class families don't get a tax hike."

BARACK OBAMA

The Reality:

President Obama's climate agenda represents an enormous tax increase on low- and middle-income Americans, nearly tripling the federal tax burden on the poorest households.



RYAN LIZZA

Senior Lecturer
Harvard Business School

Reality Check

President Obama's policies for tackling climate change would impose heavy costs borne disproportionately by lower-income U.S. households. His Clean Power Plan (CPP) and proposal for a \$10.25-per-barrel oil tax are the equivalent of a \$25–\$30-per-ton carbon tax, which would cost America's poorest families tens of billions of dollars per year. For households in the lowest-income quintile, such policies are the equivalent of a more than 160 percent federal tax increase.

Key Findings

- President Obama's climate platform—built on the CPP and his budget proposal for a \$10.25-per-barrel tax on oil—is the equivalent of a \$30-per-ton carbon tax.
 - The Environmental Protection Agency's (EPA) analysis of the CPP, as well as third-party projections for the level of carbon tax necessary to achieve the CPP's goals, shows that the CPP is comparable with a \$30-per-ton tax on power-plant emissions.
 - The oil tax would add approximately 25 cents per gallon to the cost of gasoline, equal to a \$25-per-ton tax on oil-related emissions.
 - Together, these policies—which would cover four-fifths of U.S. emissions—are similar in scope to an economy-wide carbon tax.
- The cost of such policies would fall disproportionately on the lowest-income U.S. households, which spend more than 35 percent of their annual income on energy.
 - By comparison, households in the top 10 percent of the income distribution spend less than 3 percent of their income on energy.
 - Similarly, rural households spend 40 percent more on gas and electricity—and earn 26 percent less—than households in the largest cities.
- The Obama policies will cost households in the lowest quintile \$19 billion per year, equal to a 166 percent increase in their federal tax bills.
 - Households in the second-lowest quintile would pay an extra \$25 billion, equal to a 33 percent tax increase.

On the Record

Supporters of President Obama's climate agenda—which would impose hugely disproportionate costs on the poorest Americans—are backing one of the most regressive tax plans ever contemplated in U.S. history. Yet the policy pays only lip service to 'action' on climate change and will not affect the trajectory of global greenhouse-gas emissions or temperatures.

Oren Cass, Senior Fellow, Manhattan Institute

Energy Taxes Hurt the Poor

American households vary relatively little in their energy consumption. Average before-tax income for households in the bottom 10 percent of the distribution is one-eighth that of the median household and one-fortieth that of a household in the top 10 percent. Yet electricity bills do not mirror these gaps: \$1,000 per year at the bottom; \$1,500 per year in the middle; and \$2,100 per year at the top. The same goes for gasoline, where annual bills run to \$1,100, \$2,400, and \$3,900, respectively. Thus, while a household in the bottom 10 percent spends more than 35 percent of its income on energy, one in the top 10 percent spends only 3 percent.²

Similarly, lower-income but more energy-intensive rural communities are far more sensitive to energy prices than their urban counterparts. The average household in a rural community earns 26 percent less than the average household in one of America's largest cities, yet spends 40 percent more on electricity and gasoline.³ As a result, policies that drive up energy prices are extremely regressive, landing disproportionately on lower-income and rural households. For instance, increasing the cost of gas and electricity by 20 percent from 2014 levels would have an effect comparable with a new income tax of 7.4 percent on the poorest Americans; for the richest Americans, such a price hike would be comparable with a new income tax of only 0.5 percent. That same 20 percent increase would hit the average rural family nearly twice as hard as the average family in a major city.

The Obama Carbon Tax

The regressive impact of rising energy prices helps explain why policies like a carbon tax—which aim to produce such increases—remain deeply unattractive to most policymakers. “We would never propose a carbon tax and have no intention of proposing one,” declared Jay Carney, then White House press secretary, just days after President Obama secured reelection.⁴ But the president’s platform, embraced by environmentalists and largely mirrored in the campaign agenda of Hillary Clinton,⁵ represents a thinly disguised carbon tax that will have effects at least as costly.

The first plank is the CPP, designed to force the utility sector toward higher-cost sources of electricity that will drive prices up and carbon-dioxide emissions down.⁶ The effect is similar to a carbon tax, and, as David Bailey and David Bookbinder of the Niskanen Center note,⁷ the EPA conducted an analysis that equated the CPP to a carbon tax of approximately \$30 per ton.

The CPP’s cost can also be compared with a carbon tax on the basis of its expected outcome. The EPA estimates that the CPP will reduce 2030 emissions from the utility sector by 32 percent below their 2005 level.⁸ In *Implementing a U.S. Carbon Tax*, a report from the International Monetary Fund, the Brookings Institution, and Resources for the Future, the EPA’s chief climate economist and his co-authors estimate that a carbon tax would need to start at \$30 per ton and rise each year to achieve comparable emissions reductions.⁹

The second plank of the Obama platform, proposed in his 2017 budget, is a \$10.25-per-barrel tax on oil. Most of the tax’s revenue would go toward infrastructure, and 15 percent would be rebated to households.¹⁰ A \$10.25-per-barrel tax translates into approximately 25 cents per gallon at the pump,¹¹ and each dollar of carbon tax translates to approximately one cent per gallon;¹² the tax is, therefore, no different from a \$25-per-ton tax on carbon-dioxide emissions from oil consumption.

With electricity generation and oil consumption each accounting for approximately 40 percent of U.S. emissions,¹³ President Obama’s policies together represent a carbon tax of \$25–\$30 per ton across the vast majority of energy consumption that might fall within any carbon tax’s scope. In-depth studies of carbon taxes in this range already exist and provide a clear view of the huge costs that such taxes impose.

Scoring the Obama Tax

At the household level, President Obama would impose an enormous new tax on lower- and middle-income households. In the chapter of *Implementing a U.S. Carbon Tax* focused on distributional impacts, Adele Morris of the Brookings Institution and Aparna Mathur of the American Enterprise Institute estimate that—after taking into account direct energy price increases and indirect price increases for other goods and services—a \$15-per-ton carbon tax in 2010 would have cost the bottom 20 percent of households \$11.9 billion that year and would have cost the second-lowest quintile \$15.7 billion.¹⁴ For Obama's policies, these estimates should be doubled, to account for the approximately \$30-per-ton cost, and then reduced by 20 percent, to account for their coverage of only oil- and electricity-related emissions.

Annual effective taxes on the bottom two quintiles of approximately \$19 billion and \$25 billion are massive, when compared with the \$11 billion and \$77 billion that those quintiles paid in federal taxes in 2011.¹⁵ For the lowest-income U.S. households, such policies would represent a more than 160 percent tax increase; and for the second-lowest quintile, an increase of more than 30 percent.

Income Quintile	Federal Taxes, 2011 (2011 USD, Billions) ¹⁶	Annual Burden of \$15-per-ton Carbon Tax, 2010 (2011 USD, Billions) ¹⁷	Estimated Impact of Obama Climate Policies (2011 USD, Billions)	Increase in Total Federal Tax Burden (%)
Lowest	11.4	11.9	19.0	166
Second	77.6	15.7	25.1	33
Middle	186.9	15.9	31.9	17
Fourth	354.2	24.0	38.5	11
Highest	1,379.9	34.0	54.5	4

Many carbon-tax proposals attempt to mitigate this effect by “recycling” the revenue back to households; but the Obama policies cannot do this because there is no money available. The CPP generates no revenue, and the oil-tax revenue is earmarked primarily for infrastructure investment. Estimates based on carbon-tax analyses also underestimate the full impact of Obama's climate agenda: a straight-forward, broad-based carbon tax would likely reduce emissions more efficiently than would Obama's web of taxes and regulations. The president has acknowledged that a carbon tax would be “most elegant.”¹⁸ Yet his determination to act in direct conflict with the will of Congress has forced him, instead, to pursue costlier policies that he believes the EPA can implement unilaterally.

Reality Check: Who Pays the Bill for the Obama Climate Agenda?

Endnotes

- ¹ See <https://www.whitehouse.gov/the-press-office/2012/11/14/remarks-president-news-conference>.
- ² See <http://www.bls.gov/ceex/2014/combined/decile.pdf>.
- ³ See <http://www.bls.gov/ceex/2014/combined/population.pdf>.
- ⁴ See <https://www.whitehouse.gov/the-press-office/2012/11/15/press-gaggle-press-secretary-jay-carney-en-route-new-york-ny-11152012>.
- ⁵ Clinton has expressed strong support for the CPP and has promised to "go further"; see <https://www.hillaryclinton.com/briefing/statements/2015/08/02/obama-clean-power-plan>. Sanders has proposed an aggressive carbon tax but would rebate much of the revenue to low-income households, which greatly alters the distributional effects; see <http://www.sanders.senate.gov/download/climate-protection-and-justice-act>. Neither has commented on President Obama's oil-tax proposal; see <http://www.politico.com/story/2016/02/obama-oil-tax-gop-reaction-218774>.
- ⁶ See <http://www.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants>.
- ⁷ See <https://niskanencenter.org/blog/how-high-would-a-carbon-tax-need-to-be-to-hit-cpp-emission-reductions>.
- ⁸ See <http://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan>.
- ⁹ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>.
- ¹⁰ See <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2017/assets/budget.pdf>.
- ¹¹ See <http://www.eia.gov/todayinenergy/detail.cfm?id=18651>.
- ¹² See https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44223_Carbon_0.pdf.
- ¹³ See <http://www.eia.gov/beta/MER/index.cfm?tbl=f12.01#/?f=A&start=1973&end=2014&charted=0-1-13>; table 12.1 for oil and table 12.6 for electricity.
- ¹⁴ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>; figures inflated from 2010 dollars to 2011 dollars using a CPI increase of 3.16 percent.
- ¹⁵ See <https://www.cbo.gov/publication/49440>; supplemental data.
- ¹⁶ Ibid.
- ¹⁷ See <https://www.aei.org/events/carbon-taxes-practicalities-and-prospects>; figures inflated from 2010 dollars to 2011 dollars using a CPI increase of 3.16 percent.
- ¹⁸ See <https://www.whitehouse.gov/the-press-office/2015/12/01/press-conference-president-obama>.

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371
www.science.house.gov

May 10, 2016

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator McCarthy:

The Committee on Science, Space, and Technology is continuing its longstanding oversight of the Environmental Protection Agency's (EPA) Integrated Risk Information System (IRIS).¹ As you know, the IRIS program supports the mission of EPA to protect human health and the environment by providing EPA's scientific position on the potential human health effects from exposure to chemicals in the environment.² Unfortunately, the IRIS program appears to suffer from a lack of transparency and an inability to produce work in a timely manner. For years, the National Academy of Science (NAS), the Government Accountability Office (GAO), and this Committee, as recent as 2014, have raised concerns that the IRIS program suffers from mismanagement.³ To assist in the Committee's oversight of this matter, the Committee requests documents and information related to the IRIS program.

¹ See, e.g., H. Comm. on Science, Space, & Tech., *EPA's IRIS Program: Evaluating the Science & Process Behind Chemical Risk Assessment*, 112th Cong. (Jul. 14, 2011); H. Comm. on Science, Space, & Tech., Subcomm. on Investigations & Oversight, *Toxic Communities: How EPA's IRIS Program Fails the Public*, 110th Cong. (Jun. 12, 2008); H. Comm. on Science, Space, & Tech., Subcomm. on Investigations & Oversight, *EPA's Restructured IRIS System: Have Polluters & Politics Overwhelmed Science?*, 110th Cong. (May 21, 2008).

² Gov't Accountability Office, *Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program* (December 2011) (GAO-12-42) [hereinafter GAO Dec. 2011].

³ GAO Dec. 2011; Gov't Accountability Office, *Chemical Assessments: An Agency wide Strategy May Help Address Unmet Needs for Integrated Risk Information System Assessments* (May 2013) (GAO-13-369) [hereinafter GAO May. 2013]; Gov't Accountability Office, *Chemical Assessments: Low Productivity and New Interagency Review Process Limit the Usefulness and Credibility of EPA's Integrated Risk Information System* (March 2008) (GAO-08-440) [hereinafter GAO Mar. 2008]; Gov't Accountability Office, *Report to the Cong.: High-Risk Series An Update* (Jan. 2009) (GAO-09-271); Gov't Accountability Office, *Report to the Cong.: High-Risk Series An Update* (Feb. 2011) (GAO-11-278); Gov't Accountability Office, *Report to the Cong.: High-Risk Series An Update* (Feb. 2013) (GAO-13-283); Gov't Accountability Office, *Report to the Cong.: High-Risk Series An Update* (Feb. 2015) (GAO-15-290); H. Comm. on Science, Space, & Tech., *EPA's Status of Reforms to EPA's Integrated Risk Information System*, 113th Cong. (Jul. 16, 2014).

Hon. McCarthy
Page 2

Since 2008, GAO has included the IRIS program on the High Risk List and has published three additional reports highlighting concerns with the IRIS program, issuing 17 recommendations; of those, 12 remain open today.⁴ GAO feared that the IRIS program was in jeopardy of becoming obsolete in 2008 due to its inability to issue sound risk assessments in a timely manner.⁵ GAO also found that risk assessments were taking up to a decade to complete because of internal controls deficiencies and IRIS management decisions.⁶ Ongoing assessments were delayed waiting for research to become available before moving forward with assessments. This caused a domino effect and ultimately resulted in the assessment process being repeated.⁷ GAO highlighted a number of concerns with each step of the IRIS program's assessment process. These concerns include the fact that IRIS has not conducted an evaluation of demand for IRIS assessments since 2003.⁸ GAO could not find sufficient evidence to support the 2003 estimate finding that 50 assessments would meet the then-demand.⁹ According to GAO, IRIS does not plan to conduct additional demand evaluations despite only issuing 12 assessments since 2011.¹⁰ GAO also found that the IRIS program does not clearly articulate how chemicals are prioritized or selected for assessments, among other concerns.¹¹

NAS also made recommendations for the IRIS program in 2011 "on the basis of 'lessons learned' from the formaldehyde assessment..."¹² When reviewing the draft IRIS formaldehyde assessment – an independent scientific review requested by EPA – NAS took it upon themselves to include a number of recommendations. Specifically, NAS stated "IRIS assessment methods and reports is of concern, particularly in light of the continued evolution of risk-assessment methods and the growing societal and legislative pressure to evaluate many more chemicals in an expedient manner."¹³ Despite NAS reiterating many of the same concerns in a 2014 report, IRIS has yet to implement all of those recommendations made by the NAS.¹⁴

On April 27, 2016, Committee staff received an IRIS briefing from EPA staff to better understand the current state of the program and hear firsthand the methodologies used throughout the assessment process. The briefing provided by EPA, while helpful and appreciated, has not provided answers to all of the Committee's questions, including details relating to some basic operating methods of the program. For example, EPA staff could not identify policies and procedures used to identify and determine which substance would receive an assessment. Similarly, EPA staff was unable to confirm which agency official, if any, holds the final decision making power to determine whether an assessment is necessary.

⁴ *Id.*

⁵ GAO Mar. 2008, *supra* note 3.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ GAO May 2013, *supra* note 3.

¹⁰ Environmental Protection Agency, Integrated Risk Information System, *IRIS Recent Additions*, available at <https://www.epa.gov/iris/iris-recent-additions>.

¹¹ GAO May 2013, *supra* note 3.

¹² National Academies of Sciences, Review of the Environmental Protection Agency's Draft IRIS Assessment of Formaldehyde (2011).

¹³ *Id.*

¹⁴ National Academies of Sciences, Review of the EPA's Integrated Risk Information System (IRIS) Process: Committee to Review the IRIS Process Board on Environmental Studies and Toxicology Division on Earth and Life Studies (2014).

Hon. McCarthy
Page 3

According to a 2011 *New York Times* report, IRIS Director Vincent Cogliano “wants to take a proactive approach to identifying new substances that should be evaluated. The goal, he said, is to identify problem chemicals and substances before it is too late.”¹⁵ Regrettably, it appears that Mr. Cogliano has failed to implement a proactive approach since IRIS has only completed one risk assessment since fiscal year 2014, and there is no apparent policy or procedure for identifying new substances.

To add to the litany of reviews conducted on this failing program, in 2012, congressional appropriators directed NAS to conduct another review of the IRIS program. NAS’s resulting 2014 report again recommended that IRIS develop a “handbook” to “provide a quality-management plan that includes clear methods for continuing assessments” and “to develop clear and transparent processes that allow external stakeholder input early in the IRIS process.”¹⁶ However, during its recent briefing with Committee staff, EPA was unable to provide any clarity on the status or development of the “handbook”. More concerning, despite NAS calls for more transparency, it was recently announced that “EPA will no longer announce the availability of draft IRIS assessments for public comment in the Federal Register.”¹⁷ This action appears to directly contradict specific recommendations for more transparency.

According to the *New York Times*, Director Cogliano characterized IRIS as “kind of the center of everything EPA does scientifically.”¹⁸ The program, however, has proven unable to produce risk assessments in a timely and transparent manner. The Committee is concerned that EPA is not taking the recommendations of GAO and NAS seriously.

The Committee is committed to ensuring that EPA is efficiently and transparently basic its decisions on sound science. To better understand the current state of the IRIS program, please provide the following documents and information as soon as possible, but no later than noon on May 24, 2016:

1. All documents and communications related to the development of “the handbook” as outlined in the National Academy of Sciences 2014 report entitled a “Review of the EPA’s Integrated Risk Information System (IRIS) Process.”
2. All documents and communications related to the budgeting and filling of new positions within the IRIS program, including the number of new positions, associated funds allocated to each position, position descriptions, duty locations, and responsibilities from January 1, 2008 to the present.
3. All documents and communications related to the involvement of the Office of the Secretary related to IRIS risk assessments from January 1, 2008, to the present.

¹⁵ Jeremy P. Jacobs, *New Director at EPA Plans Shakeup of Laggard Chemical-Risk System*, THE NEW YORK TIMES, Mar. 30, 2011, Available at: <http://www.nytimes.com/gwire/2011/03/30/greenwire-new-director-at-epa-plans-shakeup-of-laggard-c-94659.html?pagewanted=all> [here in after Jacobs, *EPA Plans Shakeup*].

¹⁶ *Id.*

¹⁷ 81 C.F.R. § 18625 (Mar. 31, 2016).

¹⁸ Jacobs, *EPA Plans Shakeup*, *Supra* note 15.

Hon. McCarthy
Page 4

4. All documents and communications related to the 2003 IRIS demand evaluation, and any additional demand analyses conducted.
5. All documents and communications related to the prioritization of chemicals in the IRIS assessment queue, including meeting notes, methodologies, data, policies and procedures used in the process of prioritizing chemicals from January 1, 2008, to the present.
6. All documents and communications related to the consideration, evaluation and discussion of the linear no-threshold dose-response theory, along with other competing scientific models and theories, when assessing chemicals in the IRIS program from January 1, 2008 to the present.
7. All documents and communications related to the "stopping rules" from January 1, 2008, to the present.
8. All documents and communications related to the policies and procedures regarding the "HERO database" from January 1, 2008, to the present.
9. All documents and communications related to the implementation of the Government Accountability Office's recommendations made to IRIS from January 1, 2008, to the present.
10. All documents and communications related to the implementation of National Academy of Sciences' recommendations made to IRIS from January 1, 2008, to the present.
11. All documents and communications related to the implementation of the "IRIS Program Multi Year Agenda" issued in December 2015.
12. All documents and communications related to the status of the redesign of "IRIS Track."

The Committee has jurisdiction over environmental and scientific programs and "shall review and study on a continuing basis laws, programs, and Government activities" as set forth in House Rule X.

When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2321 of the Rayburn House Office Building and the Minority Staff in Room 394 of the Ford House Office Building. The Committee prefers, if possible, to receive all documents in electronic format. An attachment to this letter provides additional information regarding producing documents to the Committee.

Hon. McCarthy
Page 5

If you have any questions about this request, please contact Drew Colliatie or Lamar Echols of the Science, Space, and Technology Committee staff at 202-225-6371. Thank you for your attention to this matter.

Sincerely,


Lamar Smith
Chairman

cc: The Honorable Eddie Bernice Johnson, Ranking Minority Member, House Committee on Science, Space and Technology

Enclosure

Responding to Committee Document Requests

1. In complying with this request, you are required to produce all responsive documents, in unredacted form, that are in your possession, custody, or control, whether held by you or your past or present agents, employees, and representatives acting on your behalf. You should also produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. Requested records, documents, data or information should not be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.
2. In the event that any entity, organization or individual denoted in this request has been, or is also known by any other name than that herein denoted, the request shall be read also to include that alternative identification.
3. The Committee's preference is to receive documents in electronic form (i.e., CD, memory stick, or thumb drive) in lieu of paper productions.
4. Documents produced in electronic format should also be organized, identified, and indexed electronically.
5. Electronic document productions should be prepared according to the following standards:
 - (a) The production should consist of single page Tagged Image File ("TIF"), or PDF files.
 - (b) Document numbers in the load file should match document Bates numbers and TIF or PDF file names.
 - (c) If the production is completed through a series of multiple partial productions, field names and file order in all load files should match.
6. Documents produced to the Committee should include an index describing the contents of the production. To the extent more than one CD, hard drive, memory stick, thumb drive, box or folder is produced, each CD, hard drive, memory stick, thumb drive, box or folder should contain an index describing its contents.
7. Documents produced in response to this request shall be produced together with copies of file labels, dividers or identifying markers with which they were associated when the request was served.
8. When you produce documents, you should identify the paragraph in the Committee's schedule to which the documents respond.
9. It shall not be a basis for refusal to produce documents that any other person or entity also possesses non-identical or identical copies of the same documents.

10. If any of the requested information is only reasonably available in machine-readable form (such as on a computer server, hard drive, or computer backup tape), you should consult with the Committee staff to determine the appropriate format in which to produce the information.
11. If compliance with the request cannot be made in full by the specified return date, compliance shall be made to the extent possible by that date. An explanation of why full compliance is not possible shall be provided along with any partial production.
12. In the event that a document is withheld on the basis of privilege, provide a privilege log containing the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter; (d) the date, author and addressee; and (e) the relationship of the author and addressee to each other.
13. In complying with this request, be apprised that the U.S. House of Representatives and the Committee on Science, Space, and Technology do not recognize: any of the purported non-disclosure privileges associated with the common law including, but not limited to, the deliberative process privilege, the attorney-client privilege, and attorney work product protections; any purported privileges or protections from disclosure under the Freedom of Information Act; or any purported contractual privileges, such as non-disclosure agreements.
14. If any document responsive to this request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipients) and explain the circumstances under which the document ceased to be in your possession, custody, or control.
15. If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you are required to produce all documents which would be responsive as if the date or other descriptive detail were correct.
16. Unless otherwise specified, the time period covered by this request is from January 1, 2008 to the present.
17. This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the return date, shall be produced immediately upon subsequent location or discovery.
18. All documents shall be Bates-stamped sequentially and produced sequentially.
19. Two sets of documents shall be delivered, one set to the Majority Staff and one set to the Minority Staff. When documents are produced to the Committee, production sets shall be delivered to the Majority Staff in Room 2321 of the Rayburn House Office Building and the Minority Staff in Room 324 of the Ford House Office Building.
20. Upon completion of the document production, you should submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive

documents; and (2) all documents located during the search that are responsive have been produced to the Committee.

Schedule Definitions

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, inter-office and intra-office communications, electronic mail (e-mail), contracts, cables, notations of any type of conversation, telephone call, meeting or other communication, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, microfiche, microfilm, videotape, recordings and motion pictures), and electronic, mechanical, and electric records or representations of any kind (including, without limitation, tapes, cassettes, disks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether in a meeting, by telephone, facsimile, email (desktop or mobile device), text message, instant message, MMS or SMS message, regular mail, telexes, releases, or otherwise.
3. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this request any information which might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.
4. The terms "person" or "persons" mean natural persons, firms, partnerships, associations, corporations, subsidiaries, divisions, departments, joint ventures, proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, or other units thereof.
5. The term "identify," when used in a question about individuals, means to provide the following information: (a) the individual's complete name and title; and (b) the individual's business address and phone number.

6. The term "referring or relating," with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with or is pertinent to that subject in any manner whatsoever.

MONICA CROWLEY: How the green energy bullies drive poverty - Wa... <http://www.washingtontimes.com/news/2016/apr/20/monica-crowley-ho...>

How the green energy bullies drive poverty

Low-income consumers can't afford expensive renewable fuels



Illustration on green energy and poverty by Linas Garsys/The Washington Times more >

By Monica Crowley - *The Washington Times* - Wednesday, April 20, 2016

ANALYSIS/OPINION:

Although climate change ranks at or near the bottom of issues most important to the American people, the Obama administration continues to push it like its agenda on radical wealth redistribution depends on it. Because in many ways, it does.

The latest move is the climate agreement reached in Paris last December, which will become effective on Earth Day, April 22, with a ceremony at the United Nations headquarters in New York involving at least 162 countries.

The deal set a target of keeping global temperature rise below 2 degrees Celsius above

MONICA CROWLEY: How the green energy bullies drive poverty - Wa... <http://www.washingtontimes.com/news/2016/apr/20/monica-crowley-ho...>

preindustrial levels. In order to achieve that, the signatory nations will have to undertake the massive and expensive switch to clean energy and low-carbon infrastructure. The Obama administration intends to enforce the agreement by imposing the EPA's Clean Power Plan (CPP) and other mandates.

The agreement's cheerleaders reveal its true objective — global wealth redistribution — when they argue that it's about reducing worldwide poverty.

"It's a simple relation: More carbon equals more poverty," says Christiana Figueres, the United Nations' climate chief. "Net zero emissions is the only way to make poverty eradication possible."

Climate change mandates aren't really mostly about climate; they're really mostly about coercing wealth from the industrialized world and transferring it to the underdeveloped one. The rich irony is that contrary to the agreement's proponents that it will "eradicate poverty," green energy mandates actually hurt the poor the most.

It's called green energy poverty, and the policies stemming from the Paris agreement will cause utility rates to rise dramatically, inevitably causing economic pain for countless energy users.

Green energy poverty is defined as a household in which 10 percent or more of the residents' income is spent on household energy costs (excluding gasoline and other transportation-related costs). Higher green energy costs leave families with less money to spend on other necessities such as housing, groceries, transportation and health care. This disproportionately hits poor minority families and seniors on fixed incomes, much like a regressive tax.

The Obama administration's CPP, for example, will increase Hispanic poverty by more than 26 percent and black poverty by more than 23 percent, according to a study by the National Black Chamber of Commerce. As the energy burdens for blacks and Hispanics grow, their household incomes will decline by increasing amounts each year. It's estimated that by 2035, cumulative job losses for blacks will total about 7 million and for Hispanics about 12 million.

According to AmericasPower.org, energy bills already consume, on average, a whopping one-fifth of low-income Americans' income. Percentage-wise, lower-income and middle-income households spend more than twice the average of higher-income households on energy. And lower-income families in particular spend three times more proportionally on energy than households with higher incomes.

MONICA CROWLEY: How the green energy bullies drive poverty - Wa... <http://www.washingtontimes.com/news/2016/apr/20/monica-crowley-ho...>

Consider California, home to billionaire and climate activist Tom Steyer, who has financed major pushes for green energy mandates. According to the Institute for Energy Research, household electricity bills in California run about 40 percent higher than the national average and are the ninth-most expensive in the nation, thanks to a law requiring green energy to comprise 33 percent of the state's electricity supply by 2020. Mr. Steyer testified in favor of a 2015 measure that would have raised the target to 50 percent by 2030.

A Manhattan Institute analysis indicates that 1 million California households now live in energy poverty. California currently has the nation's highest poverty rate, which is now 50 percent higher than Mississippi.

Further, the oppressive costs come without significant benefit in terms of public health or environmental protection. According to the Cato Institute, the CPP, for example, will only mitigate .018 degrees Celsius of warming over the next 85 years, or less than two one-hundredths of a degree Celsius by the year 2100.

Europe's experience should serve as a warning. It has been subject to green energy mandates for years, and the economic impact hasn't been pretty.

During the past eight years, electricity in Europe has become 42 percent more expensive, according to Eurostat, the statistical office of the European Union. Eight million French households are no longer able to pay their electricity bill, and some 350,000 German residences have had their power cut off, up 13 percent from 2011. German consumers' electricity bills have doubled since 2000, when a renewable-energy levy was tacked onto every residential electricity bill to subsidize owners of turbines and solar panels. The World Health Organization estimates that 30 percent of European winter deaths may be attributable to living in insufficiently heated homes.

Despite what the climate change bullies want you to believe, expensive, unreliable, tax-supported "green energy" fuels don't help to "eradicate poverty." They actually overwhelmingly hurt the poor, which suits their agenda by driving ever-more people into government dependency.

That's a real-world consequence of green policies that serves neither the climate nor the impoverished but certainly serves the radical wealth redistributors of the climate brigade.

• *Monica Crowley is editor of online opinion at The Washington Times.*

MONICA CROWLEY: How the green energy bullies drive poverty - Wa... <http://www.washingtontimes.com/news/2016/apr/20/monica-crowley-ho...>

Copyright © 2016 The Washington Times, LLC. [Click here for reprint permission.](#)

THE WALL STREET JOURNAL.

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <http://www.djreprints.com>.

<http://www.wsj.com/articles/laurence-tribe-the-epas-clean-power-plan-is-unconstitutional-1419293203>

COMMENTARY

The Clean Power Plan Is Unconstitutional

The EPA acts as though it has the legislative authority to re-engineer the nation's electric generating system and power grid. It does not.

By **LAURENCE H. TRIBE**

Dec. 22, 2014 7:06 p.m. ET

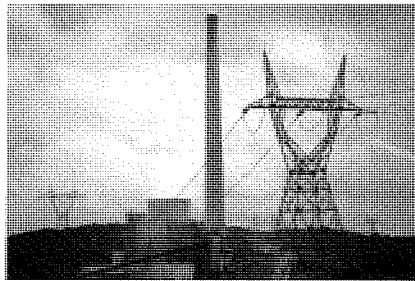
As a law professor, I taught the nation's first environmental law class 45 years ago. As a lawyer, I have supported countless environmental causes. And as a father and grandfather, I want to leave the Earth in better shape than when I arrived.

Nonetheless, I recently filed comments with the Environmental Protection Agency urging the agency to withdraw its Clean Power Plan, a regulatory proposal to reduce carbon emissions from the nation's electric power plants. In my view, coping with climate change is a vital end, but it does not justify using unconstitutional means.

Although my comments opposing the EPA's proposal were joined by a major coal producer, they reflect my professional conclusions as an independent legal scholar. I say only what I believe, whether I do so pro bono, or in this case having been retained by others. After studying the only legal basis offered for the EPA's proposed rule, I concluded that the agency is asserting executive power far beyond its lawful authority.

The Clean Power Plan would set a carbon dioxide emission target for every state, and the EPA would command each state, within roughly a year, to come up with a package of laws to meet that target. If the agency approves the package, the state would then have to impose those laws on electric utilities and the public.

The agency would effectively dictate the energy mix used in each state and leave the state with essentially no choice in implementing its plan. But Supreme Court precedent settled over two decades ago in *New York v. United States* (1992) and reaffirmed by a 7-2 vote as recently as 2012 in *NFIB v. Sebelius*, the ObamaCare decision, holds that such federal commandeering of state governments defeats political accountability and violates principles of federalism that are basic to our constitutional order.



Appalachian Electric Power's coal-fired Big Sandy Power Plant, Cattlesburg, Ky. GETTY IMAGES

Even more

fundamentally, the EPA, like every administrative agency, is constitutionally forbidden to exercise powers Congress never delegated to it in the first place. The brute fact is that the Obama administration failed to get climate legislation through Congress. Yet the EPA is acting as though it has the legislative authority anyway to re-engineer the nation's electric generating system and power grid. It does not.

To justify the Clean Power Plan, the EPA has brazenly rewritten the history of an obscure section of the 1970 Clean Air Act. The EPA cites Section 111 of the Clean Air Act as authority for its proposal. In reality, this part of the law expressly says that it may not be used to regulate power plants where, as is the case in this situation, those plants are already being regulated as Congress contemplated under another part of the law, Section 112—one involving hazardous pollutants.

Last spring, the Supreme Court read the statute in precisely that way in *Utility Air Regulatory Group v. EPA*. The EPA acknowledges that the Clean Air Act “appears by its terms to preclude” its proposal. That is an understatement. And the problem can’t be dismissed as a quirk in the statute. The language at issue has been a feature of the Clean Air Act for decades. That’s why, in 2008 (*New Jersey v. EPA*), the D.C. Circuit struck down a far less ambitious EPA rule under exactly the same statutory constraint involved here. Today the agency is again circumventing the checks Congress deliberately built into the Clean Air Act and distorting it to justify a wide-ranging carbon rule in a way Congress never intended or authorized.

Frustration with congressional inaction cannot justify throwing the Constitution overboard to rescue this lawless EPA proposal—especially when the EPA itself, through Senate testimony by its administrator, Gina McCarthy, has touted its proposal as “an investment opportunity” that isn’t really “about pollution control” at all.

Some defend the EPA’s power grab on the grounds that it has the potential of averting global disaster. They remind us that, to save the Union during the Civil War, Lincoln was willing to suspend habeas corpus without the congressional authorization the Constitution requires. Today, with the benefit of hindsight, even Lincoln’s decision looks more like an overreaction—akin to the Alien and Sedition Acts and the internment of Japanese Americans after Pearl Harbor—than a genuinely necessary response to an existential crisis.

Justice Robert H. Jackson—Nuremberg prosecutor and among our greatest defenders of constitutionalism and the rule of law—joined the Supreme Court’s decision denying President Harry Truman the authority to seize steel mills during the Korean conflict without the congressional authorization the Constitution required. Truman justified his shortcut by invoking national security, citing the need to prevent labor strife from disrupting the war effort.

In *Youngstown Sheet & Tube Co. v. Sawyer* (1952), Justice Jackson said no. He warned of losing sight of “the balanced power structure of our Republic” and reaffirmed that “ours is a government of laws, not of men.” We should heed his words today.

Mr. Tribe is a professor of constitutional law at Harvard Law School and a University Professor at Harvard University. He was retained by Peabody Energy to provide an independent analysis of the proposed EPA rule.

Laurence Tribe: The EPA's Clean Power Plan Is Unconstitutional - WSJ [http://www.wsj.com/articles/laurence-tribe-the-epas-clean-power-plan-is...](http://www.wsj.com/articles/laurence-tribe-the-epas-clean-power-plan-is-...)

Copyright 2014 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com.

Congress of the United States
Washington, DC 20515

May 13, 2016

The Honorable Bruce Rauner
Governor
207 State House
Springfield, IL 62706

The Honorable John J. Cullerton
Senate President
327 Capitol Building
Springfield, IL 62706

The Honorable Christine Radogno
Senate Minority Leader
309G Capitol Building
Springfield, IL 62706

The Honorable Michael J. Madigan
Speaker of the House of Representatives
300 Capitol Building
Springfield, IL 62706

The Honorable Jim Durkin
House Minority Leader
316 Capitol Building
Springfield, IL 62706

Dear Governor Rauner and Legislative Leaders:

We are writing to urge you to take action on a legislative solution that will allow Illinois' nuclear plants to continue to operate. Last week, we learned that two of Illinois' nuclear plants, Clinton Power Station in Clinton, Illinois and Quad-Cities Generating Station in Cordova, Illinois, may close as early as next year if legislation is not enacted by the state by the end of the current legislative session on May 31, 2016.

Illinois leads the nation in nuclear energy production where its six state-of-the-art plants provide our state with 48 percent of its electricity. These plants produce substantial benefits for Illinois residents and businesses by ensuring reliable carbon-free power, driving economic growth by injecting nearly \$9 billion per year into the state economy, and employing thousands of highly skilled workers in quality, well-paying jobs. Unfortunately, markets and public policies still do not adequately recognize the contributions of these facilities, and it now appears that two of these plants may close prematurely even though they have decades of useful life left.

A state report found that Illinois would lose 4,200 jobs and \$1.2 billion in annual economic activity as well as significant increases in electric rates and carbon emissions if those two plants close their doors. Such a result would be bad for the State of Illinois and devastating for the communities in which they operate. The premature closure of these plants would also significantly impede the ability of the state to submit a viable implementation plan for the Clean Power Plan should the Supreme Court's stay be lifted and the rule remain.

One proposed solution would establish a Zero Emission Standard (ZES) that would make Illinois one of the first states in the nation to recognize the zero-carbon benefits of nuclear energy and keep the plants at risk of premature closure operating.

We cannot afford to lose these two plants and the thousands of jobs they support. We hope that you can come together in the remaining days of the legislative session to support a comprehensive solution to prevent the untimely and preventable closure of these plants.

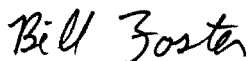
Sincerely,



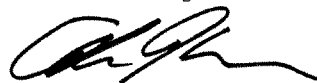
Cheri Bustos
Member of Congress



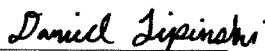
Rodney Davis
Member of Congress



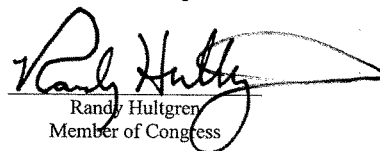
Bill Foster
Member of Congress



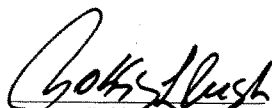
Adam Kinzinger
Member of Congress



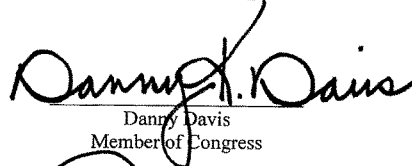
Dan Lipinski
Member of Congress



Randy Hultgren
Member of Congress



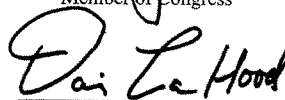
Bobby Rush
Member of Congress



Danny Davis
Member of Congress



Robert J. Dold
Member of Congress



Darin LaHood
Member of Congress

How 'greens' add to greenhouse gases

Their campaign against nuclear power leads to dirtier substitutes



In this photo taken, March 17, 2016, people rally in front of the San Luis Obispo County government building in support of Diablo Canyon nuclear power plant in San Luis Obispo, Calif. Pacific Gas & Electric Co. and environmental groups ... more >

By Mark J. Perry -- Monday, June 27, 2016

ANALYSIS/OPINION:

Listening to environmentalists talk about the threat of climate change is like hearing some lost passage of the Book of Revelation with predictions of flooded cities, wildfires, hurricanes, failing crops and swarms of disease-bearing mosquitoes. Given these warnings of catastrophe, one would reasonably assume that the environmental community would be doing everything in its power to reduce U.S. greenhouse gas emissions. That would be a reasonable assumption. But it's wrong.

Unfortunately, environmentalists are far more interested in promoting renewable energy

than they are in holding down emissions. Their stance on the early closure of more than a dozen nuclear power plants has made that abundantly clear.

Climate change appears to be no more than a tool of convenience to promote their true agenda. If these groups, such as the Sierra Club, Green Peace or Bill McKibben's 350.org, were really focused on cutting greenhouse gases, they would surely support our most effective tool in providing emissions-free power. Nuclear energy provides more than 60 percent of the nation's emissions-free electricity. It's without question our zero-carbon workhorse and yet there's hardly an environmental group willing to speak in support of it.

Caught between remarkably low natural gas prices — a product of the shale revolution — and subsidies and mandates for the use of wind and solar power, many of the nation's existing nuclear power plants are now operating at a loss. Since 2013, utilities have announced the closure of 14 nuclear reactors. Perhaps 20 more are in jeopardy of early closure as well. And yet, many environmentalists are cheering the news.

This hypocrisy is nicely captured in a single tweet from Mr. McKibben, the originator of the anti-Keystone XL movement and chief energy adviser to Bernie Sanders. After Pacific Gas and Electric (PG&E) announced the decision to close the Diablo Canyon nuclear power plant, California's last remaining nuclear plant, Mr. McKibben linked to a San Francisco Chronicle article on the decision and wrote, "A rising flood of renewable power' makes CA nuke obsolete- — little sun inside can't compete w/the big one in the sky."

That's absurd. Mr. McKibben knows very well that Diablo Canyon is not being pushed aside by solar. In the very article he linked to, the Chronicle provided data from the California Energy Commission on how the commonwealth generates its electricity. Even excluding the 25 percent of the power California imports from out of state, which is largely generated using coal, solar power supplied just 5.3 percent of the electricity in the commonwealth in 2014. Natural gas, on the other hand, generated 61.3 percent.

When Diablo Canyon is closed, the vast majority of its emissions-free power is going to be replaced with greater use of natural gas. How do we know this? First, because Michael Shellenberger, the rare environmentalist who thinks sensibly about nuclear energy, actually looked at how PG&E proposes to replace nuclear power.

Mr. Shellenberger notes that PG&E proposes to replace the 17,660 gigawatt-hours per year of emissions-free power from Diablo Canyon with 4,000 gigawatt-hours per year of energy efficiency and renewable power. What about the remaining 13,660 gigawatt-hours? There's really only one alternative — more natural gas.

While natural gas is an effective emissions-reduction energy source if it's used to replace

coal, it raises emissions if it's used to replace nuclear power. By Mr. Shellenberger's estimate, if natural gas is used to fill the gap caused by the closure of Diablo Canyon, it would produce an additional 5.4 million tons of carbon-dioxide emissions every year.

Second, we have a reference case for what happens when a nuclear plant is closed in California. In 2013, the two reactors at the San Onofre plant outside of San Diego were shuttered. The electricity they generated was replaced by a mixture of some renewables, but mostly natural gas, and the result has been an additional 18 million tons of carbon-dioxide emissions per year poured into the atmosphere.

The U.S. environmental movement largely originated from anti-nuclear sentiment in the 1970s. Despite a remarkable U.S. nuclear safety record over the last five decades and overwhelming evidence that nuclear energy is the best way to reduce emissions, the environmental community is by and large hanging on to its outdated and irrational opposition to zero-carbon nuclear. The anti-nuclear "greens" have done our country a great disservice.

Any rational energy policy would aim to keep our existing nuclear power plants operating. Since environmentalists are not only unwilling to fight to keep these plants online but are actually working to close them, they will have no one but themselves to blame when U.S. greenhouse gas emissions rise in the years ahead.

• *Mark J. Perry is a resident scholar at the American Enterprise Institute and a professor of economics at the Flint campus of the University of Michigan.*

Copyright © 2016 The Washington Times, LLC. [Click here for reprint permission.](#)

HOUSE COMMITTEE ON ENERGY AND COMMERCE
Subcommittee on Energy and Power

**EPA'S PROPOSED 111(d) RULE FOR EXISTING POWER PLANTS:
LEGAL AND COST ISSUES**

March 17, 2015

TESTIMONY OF LAURENCE H. TRIBE
Carl M. Loeb University Professor, Harvard University and
Professor of Constitutional Law, Harvard Law School¹

¹ Affiliation provided for identification purposes only. Professor Tribe was retained by Peabody Energy Corporation to provide his independent analysis of EPA's proposals as a scholar of constitutional law. The views expressed are his own.

EXECUTIVE SUMMARY

The Environmental Protection Agency's "Clean Power Plan" would command every State by the year 2016 to develop a package of EPA-approved laws requiring coal-fired power plants to shut down or reduce operations, consumers and businesses to use less electricity and pay more for it, and utilities to shift from coal to other energy sources – a total overhaul of each State's way of life. Noncomplying States would face sanctions, including the potential loss of federal highway funds, and the takeover of their energy sectors by an inflexible federal plan of uncertain scope that would inflict significant economic damage.

EPA lacks the statutory and constitutional authority to adopt its plan. The obscure section of the Clean Air Act that EPA invokes to support its breathtaking exercise of power in fact authorizes only regulating individual plants and, far from giving EPA the green light it claims, actually forbids what it seeks to do. Even if the Act could be stretched to usurp state sovereignty and confiscate business investments the EPA had previously encouraged and in some cases mandated, as this plan does, the duty to avoid clashing with the Tenth and Fifth Amendments would prohibit such stretching.

EPA possesses only the authority granted to it by Congress. It lacks "implied" or "inherent" powers. Its gambit here raises serious questions under the separation of powers, Article I, and Article III, because EPA is attempting to exercise lawmaking power that belongs to Congress and judicial power that belongs to the federal courts. The absence of EPA legal authority in this case makes the Clean Power Plan, quite literally, a "power grab."

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.

EXECUTIVE SUMMARY	ii
INTRODUCTION	1
A. Interpreting the Clean Air Act To Authorize EPA’s Plan Would Raise Constitutional Questions So Serious That Such An Interpretation Should Be Rejected.....	2
B. EPA’s Flawed Attempts To Manufacture Statutory Authority.....	7
C. There Is A Better Way.	15
FULL ANALYSIS	16
I. EPA’s Proposal Violates Principles Of Federalism By Commandeering State Governments In Violation Of The Tenth Amendment.	16
A. EPA’s Plan Invades State Sovereignty And Usurps State Authority.	16
B. The Constitution Forbids Such Federal Commandeering Of The States.....	19
C. The Fallback Option Of An Unspecified Federal Plan Is Not A Solution Here.	23
II. EPA’s Proposal Raises Serious Fifth Amendment Questions As Well.....	27
III. EPA Lacks Statutory Authority To Adopt Its Proposal.....	32
A. The Plain Language of Section 111(d) Prohibits EPA’s Proposal.	33
B. EPA’s Attempts To Rewrite Section 111(d) Fail.	36
1. EPA’s Focus On Pollutants For Which “Air Quality Criteria Have Not Been Issued” Is Unavailing.	36
2. EPA’s Argument That It May Regulate Under Section 111(d) So Long As The <i>Specific Pollutant</i> Is Not Regulated Under Section 112 Is Even Less Credible.....	37
C. EPA’s Claim That There Are “Two Versions” Of Section 111(d) Creates An Even More Profound Constitutional Question.....	39
1. EPA’s Interpretation Ignores Basic Principles Of Statutory Construction.	40
2. EPA Would Lack Authority Even Under Its Own Interpretation Of The House and Senate Amendments.....	44
3. EPA’s Interpretation Improperly Second-Guesses The U.S. Code’s Codification By The Office of Law Revision Counsel.	45
4. EPA’s <i>Chadha</i> Argument Lacks Merit.....	48
5. EPA’s Interpretation Raises Grave Constitutional Questions Under Article I, Article III, And The Separation Of Powers.	48
D. EPA’s “Gap-Filling” Argument Has No Merit: There Is No “Gap” To Fill, But If There Were, Only Congress, Not EPA, Would Have Constitutional Authority To Fix It. ..	53

INTRODUCTION

I appreciate the opportunity to appear before the Committee to present my legal views regarding EPA's proposed carbon dioxide (CO₂) regulations of power plants, which the agency calls its "Clean Power Plan." In its oversight role, Congress ordinarily focuses on questions of policy and wisdom, but of course Congress is necessarily concerned as well with questions of legality. When a federal agency that a Committee of Congress is charged with overseeing proposes a novel course of action, a particularly important question for Congress – a question anterior even to the issue of whether that course of action is a good or bad idea – is whether the action is consistent with the power Congress entrusted to the agency by statute and, even more fundamentally, with the Constitution of the United States.

I want to make clear at the outset that my testimony addresses only the lawfulness of what EPA proposes to do; I claim no expertise in, nor will I be testifying about, the pros and cons of EPA's plan as a response to the issues posed by climate change. My conclusion as a legal scholar and student of the Constitution is that EPA's proposal not only exceeds the agency's statutory and legal authority but also directly violates limits enacted by Congress to restrict EPA's power and raises serious constitutional questions. I believe that a court, and ultimately the United States Supreme Court, would so hold. In my considered view, EPA is off on a constitutionally reckless mission. Resources that it expends pursuing the Clean Power Plan are resources that could be devoted to unquestionably legal options. At its core, the issue the Clean Power Plan presents is whether EPA is bound by the rule of law and must operate within the framework established by the United States Constitution.

A. Interpreting the Clean Air Act To Authorize EPA's Plan Would Raise Constitutional Questions So Serious That Such An Interpretation Should Be Rejected.

There should be no mistake about how radical EPA's proposal to phase out the use of coal to generate electrical power actually is. Secretary of State John Kerry described U.S. policy regarding coal-fired power plants: "We're going to take a bunch of them out of commission."² But that is just the tip of the proverbial iceberg. EPA's plan represents an unprecedented attempt to change how electricity is generated, transmitted, and consumed throughout the United States. EPA has set a carbon dioxide emission target for every State in the Union. The agency would command each State, within 13 months, to come up with a package of laws to meet that target. Under other far less ambitious Clean Air Act programs involving much simpler issues, States are typically afforded up to three years to submit plans to EPA. Under this program, however, EPA threatens to effectively dictate the energy mix used in each State by determining the "state goal" for emissions. If EPA approves the plan a State must submit within just over a year,³ the State will then have to impose the laws included in that plan on electric utilities and the public.

This submissive role for the States confounds the political accountability that the Tenth Amendment is meant to protect. EPA's plan will force States to adopt policies that will raise energy costs and prove deeply unpopular, while cloaking those policies in the Emperor's garb of state "choice" – even though in fact the policies are compelled by EPA. Such sleight-of-hand offends democratic principles by avoiding political transparency and accountability. "[W]here the Federal Government directs the States to regulate, it may be state officials who will bear the

² Coral Davenport, *Strange Climate Event: Warmth Toward U.S.*, N.Y. Times (Dec. 11, 2014), available at http://www.nytimes.com/2014/12/12/world/strange-climate-event-warmth-toward-the-us.html?_r=3.

³ *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. at 34,583 (to be codified at 40 C.F.R. § 60.21).

brunt of public disapproval, while the federal officials who devised the regulatory program may remain insulated from the electoral ramifications of their decision.”⁴ As Justice Alito recently observed, “[l]iberty requires accountability.”⁵ “When citizens cannot readily identify the source of legislation or regulation that affects their lives, Government officials can wield power without owning up to the consequences.”⁶ Accordingly, EPA’s gambit would mean citizens surrendering their right to be represented by an accountable and responsive government that accords with the postulates of federalism.⁷

Alternatively, if a State plan does *not* meet with EPA’s approval, EPA claims the power to impose severe sanctions, including the loss of highway and Clean Air Act funds, as well as the imposition of a centrally planned and administered federal scheme that could harm not simply the State but also its citizens and economy. As noted by Jody Freeman, the former senior counselor for energy policy in the White House, the prospect of a federal plan “would put states at a huge disadvantage if they choose not to file a plan,” because “EPA may not have the best plan for each state.”⁸ That admission essentially concedes that EPA’s proposal puts a gun to every State’s head.

In this respect, the federalism principles at issue here are strikingly similar to those that arose in the Affordable Care Act case of *King v. Burwell*, argued in the Supreme Court on March 4. There, Justice Kennedy, among others, noted the “serious constitutional problem” that would

⁴ *NFIB v. Sebelius*, 132 S. Ct. 2566, 2602 (2012) (citation omitted).

⁵ *Dep’t of Transp. v. Assn. of Am. R.Rs*, No. 13-1080, slip. op. at 1 (U.S. Mar. 9, 2015) (Alito, J., concurring).

⁶ *Id.*

⁷ See *South Dakota v. Dole*, 483 U.S. 203, 211 (1987) (suggesting that Spending Clause may not be used to infringe rights of third parties).

⁸ *McConnell Urges States to Defy U.S. Plan to Cut Greenhouse Gases*, N.Y. Times, March 5, 2015, at A12.

result if a federal statute were interpreted as threatening the citizens of a State with significant injury unless the State agreed to follow federal policies.⁹ This case involves the same pressures on States to knuckle under to the Federal Government, and the same lack of clear notice. 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. States could not have expected, when they adopted costly implementation plans to regulate conventional pollutants like NO₂, SO₂, and particulates from sources like power plants, that EPA would also seek to phase out those plants altogether by dictating sweeping rules to regulate CO₂, which is produced by every human activity. No State could have anticipated this bait-and-switch when the Clean Air Act was enacted in 1970 or last revised in 1990. The Supreme Court has explained that the "legitimacy of Congress's exercise of the spending power" "rests on whether the State voluntarily and knowingly accepts the terms of the 'contract.'"¹⁰ "Respecting this limitation is critical to ensuring that Spending Clause legislation does not undermine the status of the States as independent sovereigns in our federal system."¹¹

EPA's plan spectacularly fails that test, and the rule of law commands us to be consistent. Some people seem to practice "fair weather" federalism, rediscovering States' rights when it allows them to sustain a federal policy they favor, but abandoning the same principles when it suits them. The Constitution demands more than that.

EPA's proposal would comprehensively re-order national electricity policy, allowing the agency to seize the role of National Electricity Czar and to elbow state as well as federal regulators out of the way. For the first time in the agency's history, EPA's proposal contains

⁹ Tr. Oral Arg., No. 14-114, at 16.

¹⁰ *NFIB v. Sebelius*, 132 S. Ct. 2566, 2602 (2012) (citation omitted).

¹¹ *Id.*

standards requiring “outside-the-fence” actions – *i.e.*, measures (such as energy conservation programs or renewable energy quotas) that take place entirely outside the physical boundaries of the electrical generating units identified in the Clean Air Act and traditionally subject to EPA jurisdiction. EPA evidently believes it is empowered to regulate *anyone* who might have an effect on CO₂ emissions from power plants, up to and including the retail consumer who uses electricity from a plant to recharge her phone.

The proposal also seeks to regulate renewable energy generators, energy distributors, and large industrial or commercial users of electricity. This sort of “plant to plug” regulation would permit the EPA to regulate any use of electricity as long as it affects CO₂ emissions – a standard that would reach virtually every use of electricity in the United States. There is no limiting principle. The Affordable Care Act may not compel health insurance consumers to eat or buy broccoli, but EPA seeks to interpret the Clean Air Act to allow it to regulate every watt used in growing broccoli and moving it to the market – as well as every watt used for any other activity within a State.

Even assuming that such an ambitious and unprecedented plan was precisely what Congress directed EPA to promulgate (and the statute, as I will show, makes clear that Congress did the opposite), the plan would dramatically violate the Tenth Amendment’s well-established anti-commandeering principle. Indeed, this plan would violate that principle in a remarkably sweeping and novel way, well beyond EPA’s usual mandate. 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. And the breathtaking scope of authority asserted by EPA to regulate “outside-the-fence” would give it greater power than Congress has granted even to the Federal

Energy Regulatory Commission (FERC), even though national grid management lies within FERC's mandate rather than EPA's and falls far outside EPA's expertise. Both the extent of federal interference and the degree of coercion are qualitatively different here from those present in any other Clean Air Act program.

One would expect that, if Congress had intended to confer such revolutionary power on EPA to command the States to do the Federal Government's bidding, it would have said so clearly. Indeed, as I will show, core constitutional principles and precedents governing the Federal-State relationship plainly forbid such blatant federal commandeering. The Supreme Court has instructed that Congress does not "hide elephants in mouseholes."¹² If ever there were an elephant in a mousehole, the EPA's plan is it – and it's an unconstitutional elephant to boot.

The Supreme Court has emphasized that federal statutes must be interpreted narrowly whenever broader interpretations would raise serious constitutional questions.¹³ Any court would therefore approach with extreme skepticism EPA's assertion that the Clean Air Act has empowered it to take the steps it has expressly indicated it will take. For if the doctrine of constitutional avoidance has any application to keep an agency from going right off the constitutional cliff (while protecting a court from having to confront a constitutional question needlessly and from attributing unconstitutional aspirations to Congress), it certainly applies here.

There is a second (entirely independent) reason for saying that, in order to avoid attributing a probably unconstitutional scheme to Congress as a co-equal branch of government, a court would demand the clearest possible showing of congressional authority for what EPA

¹² *Whitman v. American Trucking Assns., Inc.*, 531 U.S. 457, 468 (2001).

¹³ See *Bond v. United States*, 134 S. Ct. 2077, 2087 (2014).

seeks to do here. That reason is to be found in the Fifth Amendment's Due Process and Takings Clauses. Accepting EPA's view that it has ample legislative authority to adopt its plan would push the agency well past those constitutional protections against takings without just compensation and against arbitrary deprivations of property. For, as I will demonstrate, EPA seeks to single out a small number of entities that happen to lie within the agency's cross-hairs to bear a burden that, in all logic and fairness, ought to be borne by the public as a whole, and it does so in a way that upsets well-settled reliance interests created by the government itself.

B. EPA's Flawed Attempts To Manufacture Statutory Authority.

Given this doubly-problematic constitutional backdrop, it's obviously crucial to figure out how in the world EPA purports to "find" congressional authority to take this extreme (and constitutionally dubious) action. EPA relies on Section 111 of the Clean Air Act, which is primarily a provision about regulating *new* sources of emissions, not *existing* sources.

Section 111(b) requires EPA to identify *categories* of such new sources that "cause[] or contribute[] significantly to air pollution reasonably anticipated to endanger public health or welfare," and then to set emission standards for what the statute calls "source categories." When a standard is set for a new source category, Section 111(d) requires States, acting on guidelines set by EPA, to develop emission standards ("standards of performance") for the same air pollutants from "existing sources" within those same source categories, with this absolutely critical caveat: Section 111(d) applies *only* to a pollutant "which is not . . . emitted from a *source category which is regulated under section [112] of this title*." This crucial provision affirmatively prohibits EPA from invoking Section 111(d) for a source category already

regulated under Section 112 (a program for 188 listed “hazardous” air pollutants).¹⁴ That the provision operates as a prohibition and not merely as a limited grant of power is uncontested. All that is contested is the scope of what is prohibited. My study of the Clean Air Act convinces me, and would convince a reviewing court, that, because the source categories EPA seeks to regulate—coal-fired power plants—are already regulated under Section 112, the express statutory prohibition in Section 111(d) flatly bars EPA’s Clean Power Plan, making that plan, quite literally, a “power grab.”

Faced with this explicit statutory bar to its Clean Power Plan, EPA advances a variety of arguments in an attempt to circumvent the clear statutory text. Its arguments violate the rules of grammar, ignore the history and structure of the Clean Air Act, and would turn Congress’ handiwork upside down.

(1) In a case now pending in the D.C. Circuit,¹⁵ EPA has taken the position that Section 111(d) of the Clean Air Act (even the U.S. Code version of that section which, as we will see shortly, EPA refuses to accept as a correct statement of the current law) “can be read” – those are EPA’s precise words – to mean that EPA may invoke Section 111(d)’s framework to require States to establish standards for an air pollutant so long as (i) national air quality criteria have not been established for *that specific pollutant* under the Clean Air Act (which establishes ambient standards for certain listed “criteria” pollutants, such as SO₂, NO₂, particulates, O₃, lead, and CO, *but not* CO₂), or (ii) *the particular pollutant* is not already being regulated as a “hazardous” air

¹⁴ Originally Congress listed 189 pollutants. Based on new scientific information, EPA removed caprolactam from the list in 1996; thus, the current list includes 188 pollutants. CO₂ is not listed as a “hazardous” air pollutant under Section 112. Indeed, as a benign gas essential for life, it is not a conventional “air pollutant” at all.

¹⁵ *In re Murray Energy Corp.*, Nos. 14-1112, et al. (D.C. Cir.).

pollutant under Section 112.¹⁶ Because CO₂ is not a listed “criteria” pollutant and is, indeed, not a “hazardous” air pollutant at all, EPA says that the law “can be read” to permit it to invoke Section 111(d) to regulate CO₂ from existing power plants, *even though it is already regulating coal-fired electric power plants under Section 112*.¹⁷

EPA’s arguments on this score are little more than *post hoc* rationalizations constructed by creative appellate counsel in pending litigation. In an early agency proceeding under Section 111(d) following the 1990 amendments, EPA recognized that *categories of sources* regulated under Section 112 are all excluded from regulation under Section 111(d).¹⁸ EPA’s newly minted arguments ignore the structure of the Clean Air Act and are indefensible as a matter of grammar and garden-variety principles of statutory construction. They lead EPA to absurd attempts at hair-splitting, like an insistence that CO₂ may be a “dangerous” pollutant, but not a “hazardous” one.¹⁹ As I will show in detail below, these rationalizations simply make no sense.

(2) EPA tries to overcome the weaknesses in its statutory argument by appealing to an imagined power to fill distinct gaps (like holes in the ozone layer) in the Clean Air Act. Perhaps recognizing that agencies enjoy no inherent gap-filling power beyond the powers they are granted by Congress, EPA insists that the 1990 amendments enacted by Congress were themselves intended “to expand EPA’s regulatory authority across the board” and should be read

¹⁶ Brief for Respondent EPA at 36-37, *In re Murray Energy Corp.*, Nos. 14-1112 & 1151 (D.C. Cir. Feb. 12, 2015), ECF No. 1537419 (“EPA Murray Br.”).

¹⁷ Stationary power plants are already a source category regulated under Section 112 of the CAA. EPA categorized coal-fired power plants as part of a “source category” under Section 112 in 2000. In February 2012, EPA promulgated a new national emission standard under Section 112 for 188 congressionally designated “hazardous air pollutants” emitted by power plants, and the D.C. Circuit upheld EPA’s rule in *White Stallion Energy Center, LLC v. EPA*, 748 F.3d 1222 (D.C. Cir. 2014), cert. granted, Nov. 25, 2014.

¹⁸ See EPA, Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines, Pub. No. EPA-453/R-94-021 (1995), available at <http://www.epa.gov/ttn/atw/landfill/bidfl.pdf>.

¹⁹ EPA Murray Br. at 46.

to ensure that the agency can “cover the full range of dangerous emissions from stationary sources.”²⁰

There are a multitude of problems with this line of reasoning. For starters, there is no “gap” in EPA’s authority to regulate stationary sources. It has ample power to regulate coal-fired electric plants and since 2000 has exercised its power to do so under Section 112.²¹ At stake here is duplicative regulation, not a regulatory gap. EPA seeks to regulate *the same source category* under *both* Section 111(d) and Section 112, and its theory of “overlapping” regulation makes little sense textually, historically, or functionally. Indeed, in 1990, EPA officials testified before Congress that imposing double regulation on existing sources, *even for different pollutants*, would be “ridiculous.”²²

EPA errs in imputing to Congress a monolithic intention to ensure that the agency is authorized to regulate every conceivable emission under whatever section of the Clean Air Act the agency chooses, regardless of statutory overlaps and duplications. But the Supreme Court has already rejected that very imputation. It made clear in *Utility Air Regulatory Group v. EPA*²³ that EPA is *not* automatically entitled to regulate *all forms* of greenhouse gas emissions just because the agency has the authority to regulate CO₂ from cars and trucks.²⁴ The Court there noted EPA’s own recognition that applying the permitting requirements of the Clean Air Act to greenhouse gases “would be inconsistent with – in fact, would overthrow – the Act’s structure

²⁰ EPA *Murray Br.* at 41, 42.

²¹ See Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units, 65 Fed. Reg. 79,825, 79,830 (Dec. 20, 2000).

²² Energy Policy Implications of the Clean Air Act Amendments of 1989: Hearings Before the S. Cmte. on Energy and Natural Res. 101st Cong. 603 (1990).

²³ 134 S. Ct. 2427 (2014).

²⁴ *Id.* at 2440-41.

and design” and would lead to “calamitous consequences” because 6.1 million sources would require permits.²⁵ The Court instructed that EPA’s authority depends on the particular statutory context involved. Here, the specific statutory context – and the redundancy in source-category regulation under Section 111(d) and Section 112 that EPA’s theory would imply – demonstrates that EPA lacks the authority it claims.

EPA construes the 1990 amendments to favor more regulation above all other concerns. That construction ignores the necessary policy trade-offs that inevitably accompany legislation. As the Supreme Court has instructed, “no legislation pursues its purposes at all costs.”²⁶ “Deciding what competing values will or will not be sacrificed to the achievement of a particular objective is the very essence of legislative choice – and it frustrates rather than effectuates legislative intent simplistically to assume that *whatever* furthers the statute’s primary objective must be the law.”²⁷

More fundamentally, it is critical to keep in mind that administrative agencies lack “implied” or “inherent” powers – powers of the sort that the Supreme Court has been increasingly reluctant to attribute even to Congress itself.²⁸ Agencies are mere creatures of statute and possess only the authority Congress has given them. If there is a gap in the Clean Air Act, it must be filled by Congress, not by an executive body or by an independent agency. Indeed, it makes far more sense to address climate change by legislation than to rely on EPA to try to force a square peg into a round hole. Legislation enacted after careful deliberation and debate is the way Americans usually address major national problems. The limitless range of

²⁵ *Id.* at 2442.

²⁶ *CTS Corp. v. Waldburger*, 134 S. Ct. 2175, 2185 (2014) (internal quotation marks and citation omitted).

²⁷ *Rodriguez v. United States*, 480 U.S. 522, 526 (1987) (per curiam).

²⁸ *NFIB v. Sebelius*, 132 S. Ct. 2566, 2585-93 (2012) (opinion of Roberts, C.J.).

potential parties, the inseparable nature of the emissions contributed by various sources, the absence of any direct health effects (no one suggests that CO₂ itself is dangerous to human health in the way that lead is, for example), and the inherently global nature of climatic interactions, all combine to produce a phenomenon that is different in kind from the air pollution that the Clean Air Act was basically designed to address. It is worth recalling that, when the government has confronted other commingled and inseparable atmospheric phenomena, like chlorofluorocarbons, it has sought new legislative authority, rather than trying to rely on an agency to stretch an existing statute to the breaking point.²⁹ However, the Administration was unsuccessful in pushing cap-and-trade legislation through Congress after the 2010 mid-term elections. In essence, EPA is behaving as though it won legislative authority to re-engineer the nation's electric generating system and power grid. It did not.

(3) EPA tries yet a third gambit. In a Legal Memorandum accompanying its proposed Clean Power Plan, EPA advances the remarkable suggestion that in 1990 *Congress essentially adopted two versions of Section 111(d)* and that one version, which EPA calls the "Senate" version, authorizes (and perhaps even requires) EPA to regulate an emission from an existing source under Section 111(d) even though it is *already regulating the same source category under Section 112*. EPA thus relies on the extravagant notion that Congress somehow enacted two versions of Section 111(d) in 1990 and that the EPA is entitled to pick and choose which version it would like to enforce.

²⁹ Although in theory EPA might have attempted to use its authority regarding national air quality standards to regulate chlorofluorocarbons, it recognized that the Clean Air Act as then drafted was not suited for this class of pollutants that have worldwide sources and truly global implications. Thus, Congress added in its 1977 amendments to the Clean Air Act additional, ozone layer-specific authority and again in the 1990 Amendments added Title VI to regulate chlorofluorocarbon emissions. Similarly, Congress amended the Clean Air Act in 1990 to include the Title IV acid rain program specifically to address sulfur dioxide and nitrogen oxides from power plants, despite existing Clean Air Act authority to regulate those substances otherwise under the Act.

It is not easy to know where to start in dismantling this fantasy. To begin with, EPA's version of history is simply wrong. The 1990 amendments did *not* create two different versions of Section 111(d). Rather, the House adopted a substantive amendment changing Section 111(d) to bar duplicative regulation for any source category already subject to regulation under Section 112 (the version of Section 111(d) now in the U.S. Code), and the Senate amendment was simply a clerical or "conforming" one that updated a statutory cross-reference in the previous version of Section 111(d). The Senate Conferees expressly stated in the Conference Report that they were receding to the House version.³⁰ Although both versions appear in the Statutes at Large, that does *not* mean there were two different substantive versions of Section 111(d). Rather, once the House amendment was made law, the Senate amendment was rendered moot and could not be executed (because it referred to language that no longer existed), as the Office of Law Revision Counsel in the House of Representatives properly concluded.³¹

Such a situation – where a substantive amendment moots a conforming one – has occurred dozens of times in the U.S. Code. It has never before resulted in the remarkable situation where an agency is permitted to act as though *two different laws* had been enacted, and as though the mission of choosing between those different laws to determine which is *truly* the law of the land fell to that agency. Indeed, in every other instance, the substantive amendment simply has been given effect. EPA's insistence that it has recently discovered a decades-old mistake by the Office of Law Revision Counsel – and a mistake that left *EPA* with an extraordinary power to decide which of two laws is the "real" law that Congress enacted – is not

³⁰ 136 Cong. Rec. 36,065 (1990) (Chafee-Baucus Statement of Senate Managers), reprinted in *A Legislative History of the Clean Air Act Amendments of 1990* (1998), Volume I, Book 2 at 885, excerpts available at <http://docs.house.gov/meetings/IF/IF03/20140619/102346/HHRG-113-IF03-20140619-SD011.pdf>.

³¹ Revisor's Note, 42 U.S.C. § 7411.

credible. Indeed, EPA's position would call into question dozens and perhaps hundreds of statutory changes throughout the U.S. Code. It would wreak havoc by allowing agencies to make their own law willy-nilly throughout the Code. Instead of harmonizing legislation, as Supreme Court precedents instruct, EPA's argument would lead to chaos.

EPA's claim that there exist two alternative versions of Section 111(d) is therefore unfounded. But even if that two-version claim had some basis in reality, EPA's effort to invoke *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*³² as a basis for deferring to the agency's decision about which of two possible congressional enactments to treat as law rests on a complete misunderstanding of *Chevron*. Deference to an agency under *Chevron* is triggered only by a statutory *ambiguity*—that is, by the existence of *more than one possible meaning* in the language that appears in a statutory provision enacted by Congress, a provision that all accept as the starting point for analysis. *Chevron* deals only with the degree of deference an agency should receive when it resolves an ambiguity the national legislature has left in the law it has charged the executive agency with enforcing; *Chevron* has no bearing on an agency's entirely different (and illegitimate) power to decide for itself *what law* Congress has enacted.

Chevron apart, if there were indeed two versions of the statute, a mere agency (like EPA) clearly wouldn't have power to pick between them to "say what the law is." That's either a usurpation of Congress's power under Art. I or of the Judiciary's power to say what the law is³³ under Art. III—or both. It's not often that an agency manages to engineer a power grab that simultaneously usurps not just the constitutional authority of the States but also the constitutional authority of both Branches of the Federal Government outside the Executive (while also

³² 467 U.S. 837 (1984).

³³ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177 (1803).

violating the Fifth Amendment to boot), but EPA proposes to do exactly that. So, far from helping to rescue the EPA's plan from constitutional infirmity, this peculiar assertion of power to choose a version of the statute more favorable to its position embroils EPA in an even deeper multiple violation of the Constitution.

In short, EPA confronts a pair of constitutional obstacles (in the form of the Tenth and Fifth Amendments) to its reading of a law that it has expressly conceded (as recently as a court filing on February 12, 2015, in the D.C. Circuit)³⁴ is at best ambiguous in giving it the power to commandeer the States and undermine investment-backed expectations as it proposes to do. It thinks it can circumvent the otherwise inexorable operation of the constitutional avoidance principle by reaching for the further power to decree a different version of the law to be in effect. But that doubled-up power grab only gets the EPA deeper into hot water. It's a case of leaping from the frying pan into the fire.

C. There Is A Better Way.

I understand the frustration of those who insist that the Government must take action to address climate change. In fact, there are plenty of alternative policies that the Federal Government could pursue within the bounds of law, and some that it is already pursuing, which would violate neither the Clean Air Act nor the Constitution. For example, the Federal Government has always supported new energy technologies, including cleaner ways of using existing fuels. Today, greenhouse gas emissions from state-of-the-art coal plants are materially (25%) lower than those of traditional power plants, due to improved boilers, increased efficiencies, and other innovations. The United States could also support carbon capture and storage technologies. An "all of the above" energy policy can support all forms of domestic

³⁴ EPA *Murray Br.* at 10, 34-54.

energy production that will minimize carbon emissions, protect consumers and American jobs, and ensure that the U.S. remains independent from unreliable foreign sources of energy. But burning the Constitution is one thing we should *not* do as part of our national energy policy.

FULL ANALYSIS

I. EPA's Proposal Violates Principles Of Federalism By Commandeering State Governments In Violation Of The Tenth Amendment.

EPA's proposal impermissibly trenches on State authority over intrastate energy regulation in a way that is unprecedented under the Clean Air Act and raises serious constitutional questions under the Tenth Amendment and long-settled principles of federalism. Never before has this or indeed any other federal agency attempted such an extensive commandeering of state government or such a sweeping usurpation of state authority. In short, the plan poses the most serious invasion of federalism principles in the history of the Clean Air Act.

A. EPA's Plan Invades State Sovereignty And Usurps State Authority.

The proposal would lock States into a framework where the goals are set by EPA, the means to be used to achieve those goals are set by EPA, and even the 13-month timetable for the enactment and implementation of new legislation is set by EPA. EPA has already arrogated to itself the authority to determine the "best system of emission reduction" ("BSER")³⁵ and refuses to reopen that rulemaking.³⁶ States may comment on the proposed BSER, but the methodology for computing the State's goals, the body of underlying data, and the resulting BSER are all

³⁵ State Plans for the Control of Certain Pollutants from Existing Facilities, 40 Fed. Reg. 53,340, 53,346 (Nov. 17, 1975).

³⁶ *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. at 34,852 n.86.

predetermined and cannot be changed: EPA will not reopen the relevant rulemakings.³⁷ If a State fails to formulate a plan, EPA will mandate a federal plan and will likely attempt to impose severe sanctions on a noncomplying State, including loss of highway funds,³⁸ loss of support for pre-existing air pollution planning and control programs,³⁹ and a selective toughening of the regulatory regime applied to the State.⁴⁰

EPA would not simply regulate *emissions*, but would also reach out to oversee electricity production, consumption, and distribution within each State – matters that have always been deemed to be wholly within a State’s powers. Until now, EPA authority has extended only to electric generating plants. Under the Federal Power Act,⁴¹ States have exclusive jurisdiction over intrastate electricity matters. States have always been responsible for setting renewable energy portfolio standards, enacting building codes, establishing energy efficiency standards, dealing with the retail consumer, and the like. Yet EPA now seeks to dictate not only the *end goal* for a State’s energy policy but also the *best way to achieve it*. It seeks to demote the States from their historic role as laboratories of democracy to the bit part of puppets dancing to the tune of a federal puppeteer. Indeed, EPA seeks to dictate to States how they are to reduce demand, to restructure energy policy, and even to develop new rules for how to dispatch electricity. Nothing Congress has said authorizes so breathtaking a power grab. Section 111(d) authorizes EPA *only* to “establish a procedure” for States to establish performance standards that regulate potential emitters of pollution (“stationary sources”), in this case electrical power plants. Under this

³⁷ *Id.* at 34,898 & n.268.

³⁸ 42 U.S.C. § 7509(b)(1).

³⁹ 42 U.S.C. § 7509(a).

⁴⁰ 42 U.S.C. § 7509(b)(2).

⁴¹ 16 U.S.C § 824(a).

authorization, EPA is twice-removed from any direct regulation of intrastate energy use. Its latest proposal represents extravagant overreaching.

The Committee has already heard many criticisms of EPA's proposal, at a July 29, 2014 hearing attended by all five Members of the Federal Energy Regulatory Commission ("FERC")⁴² and at a September 9, 2014 hearing with State energy and environmental regulators, including regulators from Texas, Montana, Indiana, Arizona, Maryland and Washington.⁴³ FERC Commissioners have warned of potential conflicts between EPA and federal energy regulators, with one predicting a jurisdictional "train wreck."⁴⁴ Some 42 Senators, 15 Governors, and 17 State Attorneys General have signed letters and comments opposing EPA's proposal.⁴⁵ Numerous state regulators have submitted comments to EPA objecting that its proposal impermissibly trenches on state agencies currently exercising authority over electricity

⁴² See *FERC Perspectives: Questions Concerning EPA's Proposed Clean Power Plan and Other Grid Reliability Challenges*, Hearing Before the Subcomm. on Energy and Power of the H. Comm. on Energy and Commerce, at 47 (Jul. 29, 2014) (statement of Tony Clark, FERC Commissioner) (prelim. transcript available at <http://energycommerce.house.gov/hearing/ferc-perspectives-questions-concerning-epa-s-proposed-clean-power-plan-and-other-grid>).

⁴³ See *State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan*, Hearing Before the Subcomm. on Energy and Power of the H. Comm. on Energy and Commerce (Sept. 9, 2014) (prelim. transcript available at <http://energycommerce.house.gov/hearing/state-perspectives-questions-concerning-epa-s-proposed-clean-power-plan>).

⁴⁴ *FERC Perspectives: Questions Concerning EPA's Proposed Clean Power Plan and Other Grid Reliability Challenges*, Hearing Before the Subcomm. on Energy and Power of the H. Comm. on Energy and Commerce, at 47 (Jul. 29, 2014) (statement of Tony Clark, FERC Commissioner) (prelim. transcript available at <http://energycommerce.house.gov/hearing/ferc-perspectives-questions-concerning-epa-s-proposed-clean-power-plan-and-other-grid>).

⁴⁵ Letter from Senator Mitch McConnell (Kentucky) et al. to President Barack Obama (Jun. 3, 2014), http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=ba5b2aa8-f287-4cb7-a460-d7a1aef542af (senators); Letter from Governor Robert J. Bentley (Alabama) et al. to President Barack Obama (Sep. 9, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-24965> (governors); Attorney General E. Scott Pruitt (Oklahoma) et al., Comment on *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602-23949 (submitted Nov. 24, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-23949> (attorneys general) (signed by Attorneys General of the States of Oklahoma, West Virginia, Nebraska, Alabama, Florida, Georgia, Indiana, Kansas, Louisiana, Michigan, Montana, North Dakota, Ohio, South Carolina, South Dakota, Utah and Wyoming).

regulation.⁴⁶ A group of state legislators representing 17 States that are net energy exporters all wrote to oppose EPA's proposal; according to the most recent reports from the Energy Information Administration, these States represent 43% of the total electricity generation in the United States.⁴⁷ Perhaps most troubling of all, concerns have been expressed regarding the threat posed by EPA's proposal to electrical reliability, by grid operators representing more than 60% of the electricity produced in the United States.⁴⁸ These expressions are not simply self-interested assertions by jurisdictions eager to maximize their authority; they are serious statements of principled constitutional concern. And the concern is warranted, as the next section demonstrates.

B. The Constitution Forbids Such Federal Commandeering Of The States.

The Supreme Court has drawn a line: "this Court never has sanctioned explicitly a federal command to the States to promulgate and enforce laws and regulations."⁴⁹ When faced with such

⁴⁶ E.g. Idaho Governor's Office of Energy Resources, Comment to *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602 (submitted Nov. 26, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-31931>; Attorney General Jack Conway (Kentucky), Comment to *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602 (submitted Dec. 1, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22815>; Public Utilities Commission of Ohio, Comment to *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602 (submitted Dec. 1, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22762>; Pennsylvania Public Utility Commission, Comment to *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602 (submitted Dec. 1, 2014), Comment to *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830 <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-24099>.

⁴⁷ Energy Producing States Coalition, Comment on *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830 (submitted Nov. 26, 2014), No. EPA-HQ-OAR-2013-0602-22696, <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22696>; U.S. Energy Info. Admin., *Electric Power Monthly* 22, Table 1.6.B (Jan. 2015), http://www.eia.gov/electricity/monthly/current_year/january2015.pdf.

⁴⁸ Christina V. Bigelow (ISO/RTO Council), Comment on *Carbon Emission Guidelines*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602-23206 (submitted Dec. 1, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-23206>.

⁴⁹ *FERC v. Mississippi*, 456 U.S. 742, 761-62 (1982).

a command in *New York v. United States*,⁵⁰ the Supreme Court struck it down, holding that the federal government could not put a State to the Hobson's choice of either taking title to nuclear waste or enacting particular state waste regulations. Although the statute purported to give a State a choice between those options and the ability to fine-tune the federal mandate, the Court explained that "[n]o matter which path the State chooses, it must follow the direction of [the federal government]."⁵¹ The Court found that the purported "latitude given to the States to implement Congress' plan" and the supposed options "to regulate pursuant to Congress' instructions in any number of different ways," did not offer any genuine ability to exercise discretion or choice.⁵² The Court applied the same "anti-commandeering" principle in *Printz v. United States*,⁵³ invalidating federal legislation that required state law enforcement officers to perform federally mandated background checks on handgun purchasers. And, in so doing, the Court made plain that it was announcing a fundamental structural principle, not simply a value to be "balanced" against competing considerations. The Court opined that "a 'balancing' analysis is inappropriate," because "[i]t is the very principle of separate state sovereignty that such a law offends, and no comparative assessment of the various interests can overcome that fundamental defect."⁵⁴

EPA's proposal suffers from a dramatic form of the same defect. It invades state regulatory control in an unprecedented manner under the Clean Air Act. It is an understatement to say that the proposal at the very least raises grave constitutional questions that the Act must be

⁵⁰ 505 U.S. 144 (1992).

⁵¹ *Id.* at 177.

⁵² *Id.* at 176-77.

⁵³ 521 U.S. 898, 926 (1997).

⁵⁴ *Id.* at 932.

construed to avoid. If States seek to comply with the proposal, many will need to enact new legislation and develop completely new regulatory schemes within the thirteen-month timetable. EPA goes to great lengths to appear as though it gives States some degree of freedom, but in truth it offers only Potemkin choices. The State may not alter either an EPA-set state goal or the BSER. All of the important decisions have already been made by EPA, depriving each State of its prerogative to set its own policies. By controlling each State's goal and the BSER, EPA maintains control over the implementation of the plan, reserving to the State the trivial ability (at most) to fine-tune a few details.

Moreover, EPA has frustrated any ability of States to make an informed choice in response to the Proposed Rule. On October 28, 2014, EPA released a Notice of Data Availability (NODA) for the Proposed Rule,⁵⁵ which purports to provide additional information about the Proposed Rule and to solicit additional comments. But, far from clarifying matters, EPA's NODA actually introduces substantial amounts of uncertainty into the Proposed Rule and further confuses the options available to States. For example, the NODA raises the possibility that a State's compliance might be measured *regionally* rather than merely statewide.⁵⁶ The Proposed Rule itself was quite clear that emissions would be measured (and compliance was required) on a *statewide* basis, and many comments reflected that certainty by arguing that requiring compliance on a statewide basis was a fatal flaw in that Proposed Rule.⁵⁷ Such last-

⁵⁵ EPA, Notice of Data Availability, *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602; FRL-9918-53-OAR; RIN 2060-AR33 (Oct. 28, 2014), <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-notice-data-availability>.

⁵⁶ *Id.* at 36.

⁵⁷ *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. at 34,853 ("It should be noted that an important aspect of the BSER for affected EGUs is that the EPA is proposing to apply it on a statewide basis."). See National Federation of Independent Business, Comment on *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602-22962, at 20

minute shifts only worsen the situation for States, which cannot even plan ahead to know whether they will be measured on their own or, for example, in combination with their neighbors. Indeed, the NODA acknowledges this dilemma and explains with admirable candor that *EPA has no good answer* for the problem of States isolated outside of regional pacts.⁵⁸ EPA solicits comments on how the BSER is calculated for each State, tacitly acknowledging that its numbers were calculated badly,⁵⁹ but remains notably silent on the mandatory nature of the BSER. Now state goals are left uncertain until the final rule is promulgated – at which point they will be set in stone. In short, the NODA introduces even more uncertainty – but fails to address the core problem: ultimately, States are left with no control over their regulatory programs and no choice to select any option other than EPA’s.⁶⁰

At bottom, EPA’s proposal hides political choices and frustrates accountability. It forces States to adopt policies that will raise energy costs and prove deeply unpopular, while cloaking those policies in the Emperor’s garb of state “choice” – even though in fact the policies are compelled by EPA. The Supreme Court has strongly condemned such arrangements, because “where the Federal Government directs the States to regulate, it may be state officials who will bear the brunt of public disapproval, while the federal officials who devised the regulatory

(submitted Dec. 1, 2014), <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22962> [hereinafter NFIB Cmt.] (arguing that § 111(d) requires the regulation of sources rather than states).

⁵⁸ See NODA at 49 (soliciting comments on the subject).

⁵⁹ *Id.* at 51-58.

⁶⁰ See National Ass’n of Manufacturers, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generation Units, Proposed Rule, Docket ID No. EPA-HQ-OAR-2013-0602; FRL-9910-86-OAR, 79 Fed. Reg. 34,830 (June 18, 2014), Dkt. No. EPA-HQ-OAR-2013-0602-27341, at 42 (submitted Dec. 1, 2014), online at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-27341> (“As a result, if the proposal were finalized, EPA would be effectively establishing the standard of performance for each State, leaving the States with no role other than to implement the standard that EPA has already established.”).

program may remain insulated from the electoral ramifications of their decision.”⁶¹ The EPA thumbs its nose at democratic principles by confusing the chain of decision-making between federal and state regulators to avoid political transparency and accountability.

C. The Fallback Option Of An Unspecified Federal Plan Is Not A Solution Here.

In *NFIB v. Sebelius*,⁶² the Supreme Court applied principles of federalism to strike down the Affordable Care Act’s (largely federally-funded) expansion of Medicaid eligibility, explaining that the “legitimacy of Congress’s exercise of the spending power” “rests on whether the State voluntarily and knowingly accepts the terms of the ‘contract.’”⁶³ “Respecting this limitation is critical to ensuring that Spending Clause legislation does not undermine the status of the States as independent sovereigns in our federal system.”⁶⁴ When conditions on federal grants to States “take the form of threats to terminate other significant independent grants, the conditions are properly viewed as a means of pressuring the States to accept policy changes.”⁶⁵

The same reasoning is applicable here, and it demonstrates that the “option” of a possible federal plan is no solution at all under these circumstances but a mere optical illusion. If a State

⁶¹ *New York v. United States*, 505 U.S. 144, 169 (1992); see also *Printz v. United States*, 521 U.S. 898, 922–23 (1997) (citing need for “accountability” as a reason to prohibit federal government from forcing state officials to implement federal policy); *Bond v. United States*, 134 S. Ct. 2077, 2091 (2014); *Bond v. United States*, 131 S. Ct. 2355, 2364–65 (2011).

⁶² 132 S. Ct. 2566, 2601–2605 (2012).

⁶³ *Id.* at 2602 (citation omitted).

⁶⁴ *Id.*

⁶⁵ *Id.* at 2604.

fails to adopt an EPA-approved plan, the agency could attempt to impose Draconian sanctions including loss of highway funds,⁶⁶ loss of support for air pollution planning and control programs,⁶⁷ and a selective toughening of the regulatory regime applied to a State, in the form of a 2:1 ratio of emission reductions to increases – the so-called “offset penalty.”⁶⁸ These sanctions closely resemble those found impermissible in *NFIB v. Sebelius*, as leading commentators have already noted.⁶⁹

⁶⁶ 42 U.S.C. § 7509(b)(1) (2012).

⁶⁷ *Id.* § 7509(a).

⁶⁸ *Id.* § 7509(b)(2).

⁶⁹ A permitting program under the Clean Air Act has already been subject to a coercion challenge in the wake of *NFIB v. Sebelius*, although the D.C. Circuit rejected it on the basis of the specific factual context presented. *Texas v. EPA*, 726 F.3d 180, 197 (D.C. Cir. 2013) (“Even assuming a temporary construction delay of up to twelve months for new major emitting facilities is significant, State petitioners make no effort to demonstrate this delay is of the same magnitude and nature as the Medicaid expansion provision that would strip ‘over 10 percent of a State’s overall budget.’ Unlike the Medicaid provision, which was held unconstitutional because it threatened to withhold all existing Medicaid funds from States unwilling to carry out the expansion, EPA assumed authority over only the greenhouse gas portion of PSD permits and left the rest of the States’ SIPs and permitting authority in place”) (citations omitted). The EPA’s Clean Power Plan is a much more intrusive and coercive proposal. See also Jonathan H. Adler, *Could the Health Care Decision Hobble the Clean Air Act?* PERC Blog (July 23, 2012) available at <http://perc.org/blog/could-health-care-decision-hobble-clean-air-act> (“The Clean Air Act would appear potentially vulnerable on several grounds. First, the Clean Air Act conditions the receipt of money for one program (highway construction) on compliance with conditions tied to a separate program (air pollution control). This may be problematic because a majority of the Court thought Congress was trying to leverage State reliance on funding for one program (traditional Medicaid) to induce participation in another program (the Medicaid expansion). While the money at stake under the Clean Air Act is far less – most states receive substantially less in highway funds than in Medicaid funds – highway funding is less directly related to air pollution control (particularly from stationary sources) than traditional Medicaid is to the Medicaid expansion.”); Samuel R. Bagenstos, *The Anti-Leveraging Principle and the Spending Clause After NFIB*, 101 Geo. L.J. 861, 916-20 (2013) (noting the vulnerability of the Clean Air Act sanction provisions to the anti-coercion analysis applied in *NFIB*); David B. Rivkin et. al, *NFIB v. Sebelius and the Triumph of Fig-Leaf Federalism*, 2011-2012 Cato Sup. Ct. Rev. 31, 65 (2012) (explaining that “[t]he Clean Air Act may be among the most vulnerable”); Damien M. Schiff, *NFIB v. Sebelius, Coercion, and the Unconstitutional Conditions Doctrine*, SCOTUSReport, (Aug. 6, 2012), <http://www.scotusreport.com/2012/08/06/nfib-v-sebelius-coercion-and-the-unconstitutional-conditions-doctrine/> (“[T]here may be an NFIB-coercion argument here. For example, the Clean Air Act empowers EPA to impose ‘sanctions’ on a state that doesn’t appropriately update its implementation plan, and those sanctions include loss of federal transportation funds. Depending on the amount of those funds and their importance to a state budget, such a condition could amount to financial coercion akin to that imposed by the Affordable Care Act.”); Eric Turner, *Protecting from Endless Harm: A Roadmap for Coercion Challenges After NFIB v. Sebelius*, 89 Chi.-Kent L. Rev. 503, 532 (2014) (noting implications of *NFIB* for Clean Air Act and arguing that the latter “may well be an example of the federal government using its leverage on a state to get it to implement policies against its will”).

Further, this case involves the same lack of clear notice as *NFIB v. Sebelius*. 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. States could not have expected, when they adopted costly implementation plans to regulate conventional pollutants like NO₂, SO₂, and particulates from sources like power plants, that EPA would also seek to phase out those plants altogether by dictating sweeping rules to regulate CO₂, which is produced by every human activity. Commentators have noted the "shifting Clean Air Act requirements that alter states' responsibilities" in unpredictable ways.⁷⁰ "The recent inclusion of greenhouse gases as pollutants subject to regulation under the Act has radically altered states' obligations, such that states will now have to do many things they could not have anticipated when the Clean Air Act was last revised in 1990."⁷¹ Hence, both the extent of federal interference and the degree of coercion make EPA's current proposal qualitatively different from other Clean Air Act programs, such as the ambient air standards of Sections 108-110.

There is a further aggravating factor in the context of the Clean Power Plan: if a State fails to submit its own plan, it faces the possibility of an unspecified but clearly much less favorable "federal" plan. In the words of Jody Freeman, the former senior counselor in the White House for energy policy and one of the most important *amici* supporters of EPA in the pending D.C. Circuit litigation, "[i]t would put states at a huge disadvantage if they choose not to file a plan."⁷² "It gives EPA the option of implementing their own plan themselves, but the EPA

⁷⁰ David B. Rivkin et. al, *NFIB v. Sebelius and the Triumph of Fig-Leaf Federalism*, 2011-2012 Cato Sup. Ct. Rev. 31, 65 (2012).

⁷¹ Jonathan H. Adler, *Could the Health Care Decision Hobble the Clean Air Act?* PERC Blog (July 23, 2012) available at <http://perc.org/blog/could-health-care-decision-hobble-clean-air-act>.

⁷² *McConnell Urges States to Defy U.S. Plan to Cut Greenhouse Gases*, N.Y. Times, March 5, 2015, at A12.

may not have the best plan for each state.”⁷³ That admission essentially concedes that EPA’s proposal puts a gun to every State’s head. Even apart from confronting any reluctant State with loss of federal highway funds and other aid, the gun consists of subjecting non-complying States to a kind of Russian roulette in which they run the risk of being hit with a centrally planned and administered federal scheme, a plan whose details are as yet unknown, but one that threatens significant disadvantage to them and their citizens, both in absolute terms and vis-à-vis other States, if they decline to submit their own plans to EPA.

Indeed, the uncertainties surrounding a federal plan create risks that put even more pressure on non-complying States. The very feasibility of a federal implementation plan is open to question, because EPA has not announced a model and obviously lacks sufficient resources to operate in every State utility regulatory programs, energy efficiency programs, or any of the other programs that would be necessary to implement a “federal” plan. A poorly administered federal plan or one plagued with jurisdictional uncertainties and litigation⁷⁴ could paralyze a State’s energy sector, damage its economy, and inflict serious hardship on its citizens.

In short, the unprecedentedly extreme nature of EPA’s proposal raises federalism and Tenth Amendment issues that have never been presented by previous EPA rules under the Clean Air Act. EPA’s latest proposal is different in kind from anything it has sought to execute before.

⁷³ *Id.*

⁷⁴ For example, EPA lacks statutory jurisdiction to impose a federal plan containing outside-the-fence measures, such as directing the State’s utilities to acquire more renewable energy or implement consumer conservation programs. Under Section 111(d), EPA is expressly limited to promulgating performance standards that are “emission limitations,” and the outside-the-fence measures manifestly do not fall into that category. Not even FERC or the Cabinet-level Department of Energy, much less EPA, has been delegated authority by Congress to adopt such measures.

II. EPA's Proposal Raises Serious Fifth Amendment Questions As Well.

EPA's plan is a perfect illustration of the dangers inherent in permitting an unelected agency to restructure the U.S. economy on its own and the palpable unfairness of imposing all the costs on a small subset of entities within the agency's cross-hairs. It is worth repeating Secretary of State John Kerry's candid description of U.S. policy regarding coal-fired power plants: "We're going to take a bunch of them out of commission."⁷⁵ Daniel P. Schrag of the President's Council of Advisers on Science and Technology explained: "The one thing the president really needs to do now is to begin the process of shutting down the conventional coal plants."⁷⁶

EPA's proposal thus represents a shift in federal policy that obviously upsets settled, long-standing investment-backed expectations, and it does so with no accompanying attempt by EPA to quantify the climate or environmental benefits the Clean Power Plan would supposedly achieve. When EPA Acting Assistant Administrator for Air and Radiation Janet McCabe testified before this Committee on June 19, 2014, she was unable to provide any quantified assessment of an environmental benefit. She was questioned regarding the impact of the rule on specific climate indicators but was not able to provide specific information. As EPA Administrator Gina McCarthy testified before the Senate Environment and Public Works Committee on July 23, 2014: "The great thing about this [EPA Power Plan] proposal is that it really is an investment opportunity. *This is not about pollution control.*"⁷⁷ The Regulatory

⁷⁵ Coral Davenport, *Strange Climate Event: Warmth Toward U.S.*, N.Y. Times (Dec. 11, 2014), available at http://www.nytimes.com/2014/12/12/world/strange-climate-event-warmth-toward-the-us.html?_r=3.

⁷⁶ Aaron Blake, *Obama Science Adviser Calls for 'War on Coal'*, N.Y. Times, June 25, 2013, <http://www.washingtonpost.com/blogs/post-politics/wp/2013/06/25/obama-science-adviser-calls-for-war-on-coal/> (internal quotation marks omitted).

⁷⁷ U.S. House. Energy & Commerce Cmte. Press Release, *Pollution vs. Energy: Lacking Proper Authority, EPA Can't Get Carbon Message Straight* (Jul. 23, 2014), available at <http://energycommerce.house.gov/press->

Impact Analysis (RIA) for the Proposed Rule states that the impact of “reduced climate effects” has been “monetized” but not “quantified.”⁷⁸ The mismatch and lack of social benefit distinguish the Proposed Rule from other actions by EPA under the Clean Air Act. But even if the benefits were large and quantifiable and exceeded the costs the Proposed Rule would inflict on a select few, a central point of the Fifth Amendment’s combined requirements of Due Process and Just Compensation is that, except when phasing out intrinsically harmful activity that injures identifiable individuals or businesses, the Government is not free simply to pick those whose investment-backed expectations are to be eliminated for the greater good. When regulating an entity out of existence generates diffuse benefits for the public at large that exceed the targeted costs imposed on the unlucky few, the Fifth Amendment’s basic teaching is that the few should be justly compensated by the many. The point is not that the Government is bound by a constitutional duty not to change course – no constitutional principle freezes the Government in its tracks. But when the Government’s change in course drastically undercuts investment-backed expectations that amount to property interests, the Government is bound by a constitutional duty to pay, whether under the rubric of just compensation or under the rubric of due process.

To be sure, measures abating the source of a hazardous pollutant that would otherwise inflict injury on neighbors or other identifiable victims are viewed deferentially by courts. The Fifth Amendment is not the engine of destruction for regulatory measures that it was many decades ago. But this is not a traditional “air pollution” case in which government targets emissions that are in themselves harmful to those exposed to them. CO₂ simply is not a pollutant

release/pollution-vs-energy-lacking-proper-authority-epa-can%E2%80%99t-get-carbon-message-straight (emphasis added).

⁷⁸ U.S. EPA, Regulatory Impact Analysis, *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. 34,830, No. EPA-HQ-OAR-2013-0602-0391, at ES-11 (table ES-5), 4-2 (table 4-1) (June 2014), www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-0391.

in the conventional sense. Nobody doubts that it is a benign gas essential for life. Any injuries associated with climate change stem only from the overall worldwide concentration of carbon dioxide, irrespective of source. As the Supreme Court has observed, “we each emit carbon dioxide merely by breathing,”⁷⁹ and “greenhouse gases permeate the world’s atmosphere rather than a limited area near the earth’s surface.”⁸⁰ As one of my colleagues (who argued for the petitioning States in *Massachusetts v. EPA*⁸¹) has explained, the relationship between carbon emissions and climate change “does not operate like the kind of simple, short-term, more linear relationship between cause and effect that most people . . . assume is at work when they contemplate pollution.”⁸² There is simply no cause-and-effect relationship between the actions of any individual emitter and any specific harm.

As a result, climate change has a uniquely and inescapably global and systemic character. All of us are emitters, and all of our contributions are commingled.⁸³ The power plants that are the targets of EPA’s rule represent a fraction of emitters, and other sectors of the economy produce substantial greenhouse-gas emissions as well. EPA has noted that “important sources”

⁷⁹ *American Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527, 2538 (2011).

⁸⁰ *Massachusetts v. EPA*, 549 U.S. 497, 529 n.26 (2007).

⁸¹ 549 U.S. 497 (2007). In that case, the Supreme Court upheld EPA’s authority to regulate greenhouse gas emissions from cars, but that authority involved a different part of the Clean Air Act and does not give the agency carte blanche to adopt whatever rules it wants regarding power plants, as the Court later made clear in *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014).

⁸² Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 Cornell L. Rev. 1153, 1164 (2009).

⁸³ President Ronald Reagan garbled the science when he once remarked that “[t]rees cause more pollution than automobiles do.” Tim Radford, “Do Trees Pollute the Atmosphere?” *The Guardian* (May 13, 2004), online at <http://www.theguardian.com/science/2004/may/13/thisweekssciencequestions3>. This prompted hecklers at a campaign stop to hang a sign from a tree saying “Stop Me Before I Kill Again.” Gerald F. Seib, “Doubts About Perry Echo Those Faced By Reagan,” *Wall Street Journal* (Sep. 13, 2011), online at <http://www.wsj.com/articles/SB10001424053111903532804576566503132048630>.

of such emissions include motor vehicles, “industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, other land use, and waste management.”⁸⁴

This is precisely the kind of situation in which government bears a constitutional obligation of compensation, to avoid “forc[ing] some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”⁸⁵ But this is precisely the point of EPA’s proposal: forcing the United States’ power plants and energy industry to bear the global burden of lessening CO₂ emissions.

In doing so, EPA is guilty of a series of bait-and-switches that upend the well-settled reliance interests of coal plants and coal producers, as well as the employees and communities that rely on them. For example, after requiring coal-fired power plants to install very costly maximum control technology under Section 112, the agency now seeks to turn around and tell the very same sources to shut down or significantly curtail their operations, after they have already invested in such expensive technology. After long encouraging extensive investments in responsible coal production, and after receiving billions of dollars in royalties in exchange,⁸⁶ the

⁸⁴ Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514, 31,519 (Jun. 3, 2010) (codified at 40 C.F.R. pts. 51 et al.), <http://www.gpo.gov/fdsys/pkg/FR-2010-06-03/pdf/2010-11974.pdf>.

⁸⁵ *Eastern Enters. v. Apfel*, 524 U.S. 498, 522-23 (1998) (quoting *Armstrong v. United States*, 364 U.S. 40, 49 (1960)).

⁸⁶ Royalty revenue collected by the U.S. Department of the Interior is an important part of both federal and state budgets:

Under the Mineral Leasing Act of 1920 . . . the federal government collects royalties on every ton of coal that is mined on federal lands. The Department’s Office of Natural Resources Revenue (ONRR) subsequently forwards approximately half of these royalty revenues to states, which in turn distribute the money toward road construction, schools, universities, communities affected by energy development and general funds. States received nearly \$2.1 billion from oil, gas, coal and other energy royalties in FY2012, according to ONRR. More than 460.3 million tons of coal mined on federal lands was sold in FY2012, with a total sales value of \$8.1 billion. This coal generated more than \$875.8 million in royalty revenue. The federal government has collected more than \$6.8 billion in royalties between FY2003 and FY2012

Ron Wyden Senator for Oregon, *Fact Sheet: Federal Coal Royalties and their Impact on Western States*, (last viewed Oct. 9, 2014), available at <http://www.wyden.senate.gov/download/coal-royalty-fact-sheet>.

federal government will now change course. EPA's plan will increase electricity rates, reduce the reliability of the electric grid, and impose hardship on consumers. Seniors, the poor, and others of limited means will bear the brunt of the burden. Further, the EPA plan will pit coal-using regions of the country, like the Midwest, against the coasts and other parts of the country that are less reliant on coal, creating a disparate impact and regional frictions. Under the circumstances, it ill-behooves the Government to strand so much of the investment it has encouraged and to deny compensation to those from whom it has profited. The courts have repeatedly recognized that such a bait-and-switch policies trigger the obligation to pay compensation.⁸⁷

EPA's plan vividly demonstrates the risk of allowing an unaccountable administrative agency to make its own law and attempt through such law to impose the burden of global climate change on an unlucky and unfortunate few. EPA's singling out of a mere handful of emitters and drastically curtailing their use of their property is exactly the type of overreaching the Fifth Amendment seeks to prevent. As Justice Jackson warned,

That authority [vested by the Constitution in a federal branch] must be matched against words of the Fifth Amendment that "No person shall be ... deprived of life, liberty, or property, without due process of law." ... One gives a governmental authority that reaches so far as there is law, the other gives a private right that authority shall go no farther. These signify about all there is of the

⁸⁷ For example, when EPA initially promised confidential treatment to pesticide makers who submitted proprietary data in their registration applications, and then subsequently reversed course and publicly disclosed the data, the Supreme Court had no trouble finding that the manufacturers could bring a claim for a compensable taking. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1011-13 (1984). The Court found that the possibility that the data retained some modicum of value for other purposes did not preclude a taking claim. *Id.* at 1012 ("That the data retain usefulness for Monsanto even after they are disclosed — for example, as bases from which to develop new products or refine old products, as marketing and advertising tools, or as information necessary to obtain registration in foreign countries — is irrelevant . . ."). Similarly, when the federal government encouraged banks to take over failing savings and loan associations by promising that they could take advantage of a special accounting treatment, and then later changed its mind and disallowed the accounting treatment, the Supreme Court held that the banks could sue for breach of contract. *United States v. Winstar Corp.*, 518 U.S. 839 (1996).

principle that ours is a government of laws, not men, and that we submit ourselves to rulers only if under rules.⁸⁸

EPA's proposal represents a unilateral end-run by the agency around the democratic political process. Legislation enacted after careful deliberation and debate is usually the way Americans address national problems and confront difficult trade-offs. Here, an unelected, unaccountable agency seeks to aggrandize its authority to make quintessentially political judgments in the course of re-engineering the nation's electric generating system. Such a power-grab raises serious questions of what I have called "structural due process"⁸⁹ because it would allow an unelected agency not meaningfully answerable to the American people to make fundamentally legislative choices – and to avoid political accountability for doing so. In *Hampton v. Mow Sun Wong*,⁹⁰ for example, the Supreme Court invalidated a Civil Service Commission regulation denying federal employment to non-citizens because, even though the agency was not found to have acted beyond its statutory mandate, the decision to bar aliens from federal employment was not a decision that administrative officials were competent to make.⁹¹

Similarly, EPA should not be permitted to behave as though it were a junior-varsity legislature.

III. EPA Lacks Statutory Authority To Adopt Its Proposal.

Given the serious constitutional questions raised by EPA's plan and the massive disruption in the American economy that it will entail, one would expect EPA to be able to point

⁸⁸ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 646 (1952) (Jackson, J., concurring).

⁸⁹ Laurence Tribe, *AMERICAN CONSTITUTIONAL LAW* 1673-1687 (2d ed. 1988).

⁹⁰ 426 U.S. 88, 116 (1976).

⁹¹ See *National Cable Television Ass'n v. United States*, 415 U.S. 336, 341-42 (1974) (opining that "constitutional problems" would arise if statute were construed as vesting administrative agency with the discretionary authority to impose a tax).

to a clear congressional directive authorizing its unprecedented proposal. Instead, the opposite is true. Indeed, this situation presents perhaps the highest ratio of any agency rule in recent memory between (i) the costs entailed by the agency's ambition, and (ii) the degree of statutory authority identified by the agency.

Certainly, in light of the constitutional problems raised by the Clean Power Plan, EPA is not entitled to the "benefit of the doubt." It is surely not entitled to deference under the *Chevron* principle.⁹² The Supreme Court has instructed that deference to an agency's interpretation is not appropriate where that interpretation would raise a serious constitutional issue.⁹³ Statutes and regulations must instead be construed to avoid serious constitutional doubt.⁹⁴ "[D]eference to an agency interpretation is inappropriate not only when it is conclusively unconstitutional, but also when it raises serious constitutional questions."⁹⁵ EPA is entitled to no deference under this standard, and the courts would give it none.

A. The Plain Language of Section 111(d) Prohibits EPA's Proposal.

⁹² *Chevron U.S.A., Inc., v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

⁹³ See *Edward J. DeBartolo Corp. v. Florida Gulf Construction Trades Council*, 485 U.S. 568, 574-75 (1988) (noting that a "statutory interpretation by the Board would normally be entitled to deference" under *Chevron* but not deferring to the Board's interpretation because it would raise a serious constitutional issue that could be avoided through an alternative interpretation); see also *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, 531 U.S. 159, 174 (2001) (choosing to "read the statute as written to avoid the significant constitutional and federalism questions raised by [the Army Corps of Engineers'] interpretation, and therefore [to] reject the request for administrative deference").

⁹⁴ See, e.g., *Bond v. United States*, 134 S. Ct. 2077, 2087 (2014) (rejecting the government's interpretation of a criminal statute, because the Court concluded that giving the statute the sweeping construction sought by the prosecutor would have triggered serious constitutional questions (indeed, the concurring Justices would have declared the statute unconstitutional outright, *id.* at 2094 (Scalia, J., concurring))); *Adoptive Couple v. Baby Girl*, 133 S. Ct. 2552, 2565-71 (2013) (Thomas, J., concurring) (recasting the entire majority holding as compelled by constitutional avoidance); *Arizona v. Inter Tribal Council of Arizona, Inc.*, 133 S. Ct. 2247, 2259 (2013) (extending avoidance canon to find that "validly conferred discretionary executive authority is properly exercised ... to avoid serious constitutional doubt"); *Elgin v. Dep't of Treasury*, 132 S. Ct. 2126, 2130-40 (2012) (avoiding constitutional dilemma by interpreting Civil Service Reform Act to require exclusive judicial review through the Federal Circuit, including constitutional challenges to statute); *Skilling v. United States*, 561 U.S. 358, 408-09 (2010) (adopting limiting construction of honest-services statute in order to avoid due process problems).

⁹⁵ *U.S. West, Inc. v. FCC*, 182 F.3d 1224, 1231 (1999), *cert. denied*, 530 U.S. 1213 (2000).

On its face, Section 111 of the Clean Air Act prohibits EPA's proposal, because EPA already regulates coal-fired electric power plants as a source category under Section 112.

Section 111(d)(1) provides:

The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which

(A) establishes standards of performance for any existing source for any air pollutant

(i) for which air quality criteria have not been issued or which is *not* included on a list published under section 7408 (a) of this title or *emitted from a source category which is regulated under section 7412 of this title*⁹⁶

The "section 7412" to which Section 111(d) refers is Section 112 of the Clean Air Act, which establishes programs for protecting the public health and environment from exposure to 188 listed toxic air pollutants. The 1990 Amendments to the Clean Air Act revamped its architecture by (i) overhauling the then-20-year-old National Emissions Standards for Hazardous Air Pollutants (NESHAP) program for regulating stationary-source emissions of "hazardous air

⁹⁶ 42 U.S.C. § 7411(d) (2012) (emphases added). Section 111(d) contains an additional limitation. Section 111(d) permits regulations for existing sources only if there already exist corresponding regulations for subsection (b) "new" sources. There must be a "standard of performance under [Section 7411 that] would apply if such existing source were a new source." *Id.* § 7411(d)(1)(A)(ii). Currently, *there is no Section 111(b) regulation applicable to "new" stationary sources of CO₂ that would correspond to the proposed Section 111(d) regulations.* EPA acknowledges that Section 111(b) regulations for CO₂ are a necessary prerequisite and has stated that it intends to complete at least one of two Section 111(b) regulations concerning CO₂ emissions from new fossil fuel-fired EGUs before it finalizes the current Section 111(d) rulemaking, in order to satisfy what it acknowledges is a "requisite predicate for" the Section 111(d) rules. Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units, at 13, <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-legal-memorandum>.

Moreover, in order to regulate a pollutant under Section 111(b), EPA must make a so-called "endangerment finding" regarding that pollutant. EPA has not issued such a finding with respect to CO₂ from coal-fired power plants. Instead, the agency is seeking *sub silentio* to bootstrap its 2009 endangerment finding for motor and mobile sources. However, EPA is wrong. Before it can assert regulatory jurisdiction under Section 111, EPA must make an endangerment finding with respect to CO₂ *from the specific source category being regulated* (in this case, existing coal-fuel fired generating plans). The plain language of Section 111(b)(1)(A) requires EPA to make an endangerment determination that is source-category-specific and includes a threshold significance finding for the air pollutant EPA wishes to regulate. EPA cannot simply read these unique provisions out of the statute by pointing to an endangerment determination from another section that applies a different standard.

pollutants” that EPA was to regulate, (ii) shifting from EPA discretion to come up with a list of hazardous air pollutants to a congressionally enumerated list of those pollutants, for each of which EPA was directed to set health-based emission standards meeting congressionally established criteria, and (iii) directing EPA to publish and revise “a list of all categories and subcategories of major sources” of those listed pollutants.⁹⁷

Section 112 pollutants range from acetaldehyde to xylenes, but of course they exclude carbon dioxide, which is not a “hazardous air pollutant” either in ordinary parlance or within the meaning of the Clean Air Act. Under Section 112(f), the statute requires EPA to report to Congress on the significance of the risks associated with these pollutants and recommend appropriate legislation. If Congress does not legislate in response to EPA’s recommendations, then EPA is required to issue standards for categories of sources of hazardous air pollutants as necessary to protect the public health with “an ample margin of safety” or to prevent “an adverse environmental effect.” Under the other major change to Section 112 in 1990, Section 112(c)(1), EPA maintains a list of all categories of sources governed by Section 112, and then sets regulations on a source-category basis (e.g., chemical plants, steel plants, etc.) based on control methods demonstrated to be “achievable” for that industry or source category.

Congress plainly anticipated that EPA could and presumably would regulate electric power plants under Section 112. Section 112(n)(1), enacted as part of the 1990 amendments, specifically directed EPA to evaluate regulation of those plants under Section 112 within three

⁹⁷ The Clean Air Act also contains another program under which EPA sets National Ambient Air Quality Standards (“NAAQS”) for six principal pollutants, which are called “criteria” pollutants: sulfur dioxide (SO₂), particulate matter (PM_{2.5} and PM₁₀), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone, and lead (but not CO₂). Section 109 of the Act requires EPA to establish NAAQS, based on findings of harm to public health and welfare, with an adequate margin of safety. Under Section 110 of the Act, the States adopt plans, known as State Implementation Plans (“SIPs”), and submit them to EPA to administer the NAAQS. Otherwise, EPA can impose a federal plan.

years after the 1990 legislation. In 2000, EPA included coal-fired electric generating plants as part of a “source category” under Section 112, and it has regulated those plants under Section 112 ever since.⁹⁸ Further, in February 2012, EPA promulgated a new national emission standard for those plants under Section 112.⁹⁹

Accordingly, the plain text of Section 111(d) flatly and unambiguously prohibits EPA’s proposal. EPA has taken the view that CO₂ (despite its naturally occurring role in respiration) is an “air pollutant” within the meaning of the Clean Air Act. But, under Section 111(d), EPA lacks the power to establish an emissions standard “for any air pollutant” – which under EPA’s own view includes CO₂ – “emitted from a source category which is regulated under” Section 112. That should be the end of the matter.

B. EPA’s Attempts To Rewrite Section 111(d) Fail.

To avoid that conclusion, EPA has attempted to rewrite Section 111(d) so as to authorize its Clean Power Plan. These efforts fail.

1. EPA’s Focus On Pollutants For Which “Air Quality Criteria Have Not Been Issued” Is Unavailing.

EPA has pointed to a part of Section 111(d) authorizing regulation of pollutants for which “air quality criteria have not been issued.” EPA argues this clause is sufficient to authorize its proposal because air quality criteria have not been issued for CO₂. But the statutory context disproves EPA’s theory. In context, the clause applies to pollutants that are listed on a schedule under Section 108(a) for which no air quality criteria have – as yet – been issued. This condition

⁹⁸ See Regulatory Finding on the Emissions of Hazardous Air Pollutants from Electric Utility Steam Generating Units, 65 Fed. Reg. 79,825, 79,830 (Dec. 20, 2000).

⁹⁹ See National Emission Standards 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 (Feb. 16, 2012) (codified at 40 C.F.R. pt. 63).

occurs every time a new pollutant is listed under Section 108, between the time of the pollutant's listing and the subsequent publication of air quality criteria. Read in context, the clause refers only to the five 1970 criteria pollutants plus other pollutants that have since been listed under Section 108 but for which air-quality criteria "have not been issued." It does not afford regulatory carte blanche. The special circumstances in which it applies – after a listing but before a criteria publication – are absent in this case.

2. EPA's Argument That It May Regulate Under Section 111(d) So Long As The *Specific Pollutant* Is Not Regulated Under Section 112 Is Even Less Credible.

Next, EPA posits an absurd, hair-splitting distinction between "dangerous" and "hazardous" pollutants,¹⁰⁰ and suggests that Section 111(d) precludes only new emissions standards for *hazardous* air pollutants already regulated under Section 112. That suggestion cannot be squared with the text and structure of the provision. Section 111(d) precludes EPA from establishing emissions standards for "*any*" air pollutant emitted from a source category regulated under Section 112. To say that the clause "which is regulated under section [112]" modifies "air pollutant" requires attributing a terrible sense of grammar to Congress. The only natural reading is that the clause "which is regulated under section [112]" modifies the phrase "source category" because it *immediately follows that phrase in the sentence*.¹⁰¹

Such a reading is fortified by the structure of Section 112, which operates according to source categories established by EPA. Moreover, the phrase "any air pollutant" *cannot* refer

¹⁰⁰ EPA *Murray Br.* at 46.

¹⁰¹ The full provision reads: "The Administrator shall prescribe regulations . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for *any air pollutant* for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from *a source category which is regulated under section 7412* of this title" 42 U.S.C. § 7411(d)(1) (emphasis added).

solely to *hazardous* air pollutants because that same phrase is also modified by the words “for which air quality criteria have not been issued or which is not included on a list published under section [108(a)] of this title.” “[A]ny air pollutant” *must* be broader than “hazardous air pollutants” because it must also include these other two categories, which overlap but are not coextensive.

In the end, even EPA acknowledges that “a literal” application of Section 111(d) would likely preclude its proposal.¹⁰² In a Legal Memorandum accompanying its proposal, EPA explains:

As presented in the U.S. Code, the Section 112 Exclusion appears *by its terms* to preclude from section 111(d) any pollutant if it is emitted from a source category that is regulated under section 112. The U.S. Code version of 111(d) can be read to provide that the provision would not cover GHGs because GHGs are emitted from EGUs and EGUs are a source category regulated under section 112.¹⁰³

In its first action under Section 111(d) following the 1990 amendments, EPA recognized that categories of sources regulated under Section 112 are excluded from regulation under Section 111(d).¹⁰⁴ EPA adhered to the same view before the D.C. Circuit in *New Jersey v. EPA*.¹⁰⁵ In that case, the D.C. Circuit vacated EPA’s invocation of Section 111(d) for existing power plants because such plants were listed for regulation under Section 112. It did so even though EPA had not yet issued actual standards for power plants under Section 112, and even

¹⁰² Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units (“Legal Memorandum”), at 26 available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-legal-memorandum>. By contrast, EPA finds Section 111(d) ambiguous when read with other interpretive tools such as legislative history and statutory structure.

¹⁰³ Legal Memorandum at 22 (emphasis added).

¹⁰⁴ See EPA, Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines, Pub. No. EPA-453/R-94-021 (1995), available at <http://www.epa.gov/ttn/atw/landfill/bidfl.pdf> (“EPA also believes that [the House amendment] is the correct amendment because the Clean Air Act amendments revised section 112 to include regulation of source categories in addition to regulation of listed hazardous air pollutants, and [the House amendment] thus conforms to other amendments of section 112.”).

¹⁰⁵ 517 F.3d 574, 583 (D.C. Cir. 2008).

though neither the listing decision nor the decision to regulate power plants using national standards rather than by mandating state-by-state standards had yet been subject to judicial review. The D.C. Circuit explained that “under EPA’s own interpretation of the section, it cannot be used to regulate sources listed under section 112; EPA thus concedes that if [electric generating units] remain listed under section 112, as we hold, then the [Section 111(d)] regulations for existing sources must fall.”¹⁰⁶

Three years later, the Supreme Court similarly opined that Section 111(d) forbids EPA from adopting a rule “if existing stationary sources of the pollutant in question are regulated under . . . the ‘hazardous air pollutants’ program, § 7412.”¹⁰⁷ EPA’s interpretation of Section 111(d) thus runs directly counter to its own prior views and to the decisions of both the U.S. Supreme Court and of the D.C. Circuit.¹⁰⁸

C. EPA’s Claim That There Are “Two Versions” Of Section 111(d) Creates An Even More Profound Constitutional Question.

The plain language of Section 111 ought to be the end of the matter. But in another gambit to locate a firmer statutory basis for its proposed rule, EPA attempts an ambitious and far-fetched reinterpretation of Section 111’s history. EPA contends that there are effectively *two versions* of Section 111(d), and that its version supports its claim to statutory authority more strongly than does the version courts have long assumed to be the law. According to EPA, this

¹⁰⁶ *Id.*

¹⁰⁷ *Am. Elec. Power, Inc. v. Connecticut*, 131 S. Ct. 2527, 2537 n.7 (2011).

¹⁰⁸ EPA has suggested that the Supreme Court actually understood the prohibition to be pollutant-specific rather than source-category-specific. *EPA Murray Br. 40*. But that suggestion ignores the Court’s reference to “stationary sources of the pollutant” that “*are* regulated” under Section 112. *Am. Elec. Power*, 131 S. Ct. at 2537 n.7. If the Court had meant to refer to the pollutant rather than the source category, it would have used the verb “is” rather than “are.” EPA’s fallback argument is that if the Supreme Court in fact meant to refer to existing sources, “then it is at least half wrong” because of its reference to regulation of existing stationary sources under Sections 108-110. *EPA Murray Br. 40*. Yet the Supreme Court was not wrong at all – an existing source could not be regulated under Section 111(d) if there already was regulation under Sections 108-110. 42 U.S.C. § 7411(d)(1)(A)(i) (prohibiting regulation under Section 111 of pollutants on a list “published under section [108](a)”).

curious state of affairs “arises because two different amendments to section 111(d) were enacted in the 1990 CAA Amendments,” and “the U.S. Code does not accurately reflect what was enacted – it presents only one of the two amendments.”¹⁰⁹ Thus, EPA asserts that Section 111(d) is actually “ambiguous” and therefore subject to the agency’s “reasonabl[e]” interpretation.¹¹⁰

EPA’s argument is a creative one, but it cannot withstand scrutiny.

1. EPA’s Interpretation Ignores Basic Principles Of Statutory Construction.

EPA’s interpretation runs headlong into a fundamental rule of statutory interpretation: agencies must attempt to reconcile or harmonize statutory provisions, rather than asserting the power to decide which provision they would prefer to enforce.¹¹¹

It is very easy to harmonize the House and Senate provisions of the 1990 Amendments. Prior to 1990, Section 111(d) prohibited EPA from regulating under that Section “any air pollutant” “not included on a list published under ... 112(b)(1)(A).”¹¹² In other words, the pre-1990 prohibition on EPA’s Section 111(d) authority focused on whether the *pollutant* was *amenable* to regulation (*i.e.*, whether the substance was a pollutant listed under Section 112), as opposed to whether EPA had *actually* regulated the *source category* of the pollutant under Section 112. Indeed, prior to 1990, the concept of “source categories” under Section 112 did not even exist in the Clean Air Act.

In conjunction with the source categories of Section 112, the 1990 amendments to the Clean Air Act shifted the focus of Section 111(d)’s regulatory bar from *pollutants* potentially

¹⁰⁹ *Id.*

¹¹⁰ Legal Memorandum at 8, 26.

¹¹¹ See *Branch v. Smith*, 538 U.S. 254, 273 (2003) (quoting *Posadas v. National City Bank*, 296 U.S. 497, 503 (1936)).

¹¹² 42 U.S.C. § 7411(d) (1987).

subject to regulation under Section 112 to *sources* actually regulated under Section 112. In 1990, the House-Senate Conference Committee included two separate changes to Section 111(d)(1) – one from the Senate bill, and the other from the House bill – in the final version of the legislation, which was subsequently passed by both chambers of Congress and signed by the President.

The House Amendment made a substantive change to Section 111(d) by replacing the cross-reference to “112(b)(1)(A)” with the language that now appears in the U.S. Code – the language providing that EPA may not regulate the emission of any pollutant from “a source category which is regulated under section 112.”¹¹³ The amendment changed the restriction in Section 111(d) from one triggered by *hazardous air pollutants amenable to regulation* to one triggered instead by *source categories actually being regulated under Section 112*.

The second amendment (which originated in the Senate) operated “by striking ‘112(b)(1)(A)’ and inserting in lieu thereof ‘112(b).’”¹¹⁴ The Senate Amendment appears much later in the Statutes at Large among a list of purely clerical changes made in 1990, entitled “Conforming Amendments.”¹¹⁵ According to the Office of the Legislative Counsel’s manual for drafting legislation, a “Conforming Amendment[s]” is an “amendment of a provision of law that is necessitated by the substantive amendments or provisions of the bill.”¹¹⁶ They effectuate the sorts of ministerial changes required to clean up a statute after it has been substantively

¹¹³ Pub. L. No. 101-549, § 108(g), 104 Stat. 2399 (1990).

¹¹⁴ Pub. L. No. 101-549, § 302(a).

¹¹⁵ Pub. L. No. 101-549, § 302(a), 104 Stat. 2399 (1990).

¹¹⁶ United States Senate, Office of the Legislative Counsel, Legislative Drafting Manual § 126(b)(2)(A).

amended.¹¹⁷ These “include[] amendments, such as amendments to the table of contents, that formerly may have been designated as clerical amendments.”¹¹⁸

Consistent with its description as merely a conforming amendment, the Senate Amendment sought simply to bring up to date Section 111(d)’s cross-reference to Section 112(b)(1)(A). Other substantive amendments to the Clean Air Act in 1990 had already eliminated Section 112(b)(1)(A) and replaced it with Sections 112(b)(1), 112(b)(2), and 112(b)(3).¹¹⁹ The conforming amendment was necessitated by those substantive amendments: it sought merely to account for these changes to Section 112 by “striking ‘[112](b)(1)(A)’ and inserting in lieu thereof ‘[112](b).’”¹²⁰

The legislative history confirms this interpretation. The history shows, first, that the House and Senate Conferees adopted the House-originated statutory language providing that source categories regulated under Section 112 may not be regulated as existing sources under Section 111, and, second, *the Senate expressly receded to the House with respect to these substantive provisions regarding Section 111(d)*. The Statement of Senate Managers explains:

SECTION 108-MISCELLANEOUS PROVISIONS.

Senate bill. In section 103 of the Senate bill revises sections 108(e) and (f) of the Clean Air Act to require the Administrator and the Secretary of Transportation to update air quality/transportation planning guidance and to add to the transportation control measures to be evaluated by the Administrator after consultation, when appropriate, with the Secretary.

House amendment. The House amendment contains a similar provision to the one in the Senate bill regarding amendments to section 108 of the Clean Air Act. In addition, the House amendment contains provisions for a technology clearinghouse to be established by the Administrator, for amending section 111 of the Clean Air Act relating to new and existing stationary sources, for amending

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ See Pub. L. No. 101-549, § 301.

¹²⁰ Pub. L. No. 101-549, § 302(a).

section 302 of the Clean Air Act which contains definitions, to provide a savings clause, to state that reports that are to be submitted to Congress are not subject to judicial review, and for other purposes.

Conference agreement. *The Senate recedes to the House* except that with respect to the requirement regarding judicial review of reports, the House recedes to the Senate, and with respect to transportation planning, the House recedes to the Senate with certain modifications.¹²¹

By receding to the House language, the Conferees effectively removed obsolete references to Section 112(b)(1)(a) from the underlying Clean Air Act. Once the substantive House amendment was adopted, the Senate “conforming amendment” was rendered non-executable because the reference it replaced *no longer existed*. This is why the U.S. Code includes the notation that the clerical entry here “could not be executed.”¹²² Indeed, in 2005 EPA itself expressly recognized that the second, clerical amendment was “a drafting error and therefore should not be considered.”¹²³ The net result of the amendments is the statute now codified in the U.S. Code.

Thus, the Statutes at Large simply do *not* contain “two” *separate* versions of Section 111(d), as EPA contends when it invokes authority for the proposition that the Statutes at Large trump the U.S. Code in cases of conflict. Once the substantive amendment was executed, the conforming amendment was mooted. And it would not matter if the amendments were applied in the reverse order. If the cross-reference to subsection 112(b)(1)(A) in the Senate (conforming) amendment were adopted first, it *still* would be rendered moot by the substantive House

¹²¹ 136 Cong. Rec. 36,065 (1990) (Chafee-Baucus Statement of Senate Managers) (emphasis added), reprinted in *A Legislative History of the Clean Air Act Amendments of 1990* (1998), Volume I, Book 2 at 885 (emphasis added), excerpts available at <http://docs.house.gov/meetings/IF/IF03/20140619/102346/HHRG-113-IF03-20140619-SD011.pdf>.

¹²² Revisor’s Note, 42 U.S.C. § 7411.

¹²³ 70 Fed. Reg. 15994, 16031 (Mar. 29, 2005).

amendment removing the statutory language in question. Either way, the result would be the single version of Section 111(d) that is currently reflected in the U.S. Code.

Importantly, this approach does not “negate” or ignore the Senate amendment. In fact, this is an unremarkable situation which is common in complex legislative schemes and which has never been thought to be problematic. The U.S. Code contains numerous examples of the precise situation occurring here (a clerical amendment rendered moot by substantive amendments), and in each case the clerical amendment was excluded because it “could not be executed.”¹²⁴ This circumstance has never in our history as a nation led a reviewing court to give effect to the conforming amendment over the substantive amendment that rendered it moot.

2. EPA Would Lack Authority Even Under Its Own Interpretation Of The House and Senate Amendments.

Even under EPA’s view of the House and Senate amendments, it would *still* lack statutory authority. For, even if effect were given to *both* the House and Senate amendments, the result would be the same: EPA’s Clean Power Plan would lack statutory basis. The *House* amendment prohibits EPA from regulating, under § 111(d), *any pollutants emitted from sources in a source category already regulated under § 112*; the Senate amendment forbids EPA from regulating, under § 111(d), *any hazardous air pollutants*, regardless of whether they are emitted from a source in a category regulated under § 112. Both restrictions on EPA’s authority can

¹²⁴ See, e.g., Revisor’s Note, 5 U.S.C. app. 3 § 12; Revisor’s Note, 8 U.S.C. § 1324b; Revisor’s Note, 10 U.S.C. § 869; Revisor’s Note, 10 U.S.C. § 1074a; Revisor’s Note, 10 U.S.C. § 1407; Revisor’s Note, 10 U.S.C. § 2306a; Revisor’s Note, 10 U.S.C. § 2533b; Revisor’s Note, 11 U.S.C. § 101; Revisor’s Note, 12 U.S.C. § 1787; Revisor’s Note, 12 U.S.C. § 4520; Revisor’s Note, 14 U.S.C. ch. 17 Front Matter; Revisor’s Note, 15 U.S.C. § 1060; Revisor’s Note, 16 U.S.C. § 230f; Revisor’s Note, 18 U.S.C. § 1956; Revisor’s Note, 18 U.S.C. § 2327; Revisor’s Note, 20 U.S.C. § 1226c; Revisor’s Note, 20 U.S.C. § 1232; Revisor’s Note, 20 U.S.C. § 4014; Revisor’s Note, 21 U.S.C. § 355; Revisor’s Note, 22 U.S.C. § 2577; Revisor’s Note, 22 U.S.C. § 3723; Revisor’s Note, 23 U.S.C. § 104; Revisor’s Note, 26 U.S.C. § 105; Revisor’s Note, 26 U.S.C. § 219; Revisor’s Note, 26 U.S.C. § 613A; Revisor’s Note, 26 U.S.C. § 4973; Revisor’s Note, 26 U.S.C. § 6427; Revisor’s Note, 29 U.S.C. § 1053; Revisor’s Note, 33 U.S.C. § 2736; Revisor’s Note, 39 U.S.C. § 410; Revisor’s Note, 40 U.S.C. § 11501; Revisor’s Note, 42 U.S.C. § 218; Revisor’s Note, 42 U.S.C. § 300ff-28; Revisor’s Note, 42 U.S.C. § 3025; Revisor’s Note, 49 U.S.C. § 47115.

readily be applied together, with no conflict. EPA may give effect to both by construing the two amendments as jointly prohibiting EPA from regulating under § 111(d) *any hazardous air pollutants already regulated under § 112*, as well as *any emissions of any pollutants from a source in “a source category which is regulated under § 112.”* Such an interpretation would result in a two-part statutory prohibition that completely forecloses EPA’s proposal. To the extent one assumes that both the House and Senate amendments are still viable, they can both be implemented according to the plain wording of the statute; there is “no room for agency discretion.”¹²⁵

3. EPA’s Interpretation Improperly Second-Guesses The U.S. Code’s Codification By The Office of Law Revision Counsel.

Under EPA’s approach, the statute would lead to an administrative nightmare that would itself raise serious constitutional questions. EPA seeks to override the judgment of the Office of Law Revision Counsel as to how the 1990 amendments should be construed, even though there is no conflict between the Statutes at Large and U.S. Code. If this approach were allowed, agencies would be able to wreak havoc with the U.S. Code, which contains dozens of situations precisely like this one.

EPA’s approach is premised on the erroneous assumption that the Statutes at Large in this instance reflect two separate versions of Section 111(d). They do not. Rather, the Statutes at Large simply disclose a substantive amendment and a conforming (or clerical) amendment. The U.S. Code properly reflects the first (substantive) amendment and not the second (clerical) amendment, which “could not be executed” because of the substantive amendment.¹²⁶ There is

¹²⁵ *Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Svcs.*, 545 U.S. 967, 982 (2005).

¹²⁶ Revisor’s Note, 42 U.S.C. § 7411.

no conflict or ambiguity. To the extent there was ever a mistake, it has been cleaned up twice now – once by the congressional Conference Committee and a second time by the Office of Law Revision Counsel (the “Revisor”).¹²⁷

The Revisor operates “under the supervision of the Committee on the Judiciary of the House of Representatives,”¹²⁸ and every individual Member of Congress receives a copy of the Code and its supplement.¹²⁹ In this case, Members of Congress received the second supplement to the 1988 edition of the United States Code, containing the Revisor’s determination, early in 1991. I have been unable to find any evidence that any Member of Congress ever challenged that determination using a question of privilege or by any other means.

In addition, the Revisor assists in the one-time process of repeal and reenactment of the underlying provisions of each title of the Code, referred to as “positive law codification.”¹³⁰ A positive law codification of the Clean Air Act was completed by the Revisor and submitted to Congress in 2013.¹³¹ In relevant part, its text rejects EPA’s interpretation and adheres to the current version of the U.S. Code. The text prohibits Section 111(d) from being invoked for “any air pollutant . . . emitted from a source category that is regulated under section 211112 of this title,”¹³² the renumbered Section 112 hazardous air pollutant program.

¹²⁷ See *Lamson v. United States*, 117 Fed. Cl. 755, 761 (Fed. Cl. 2014) (sustaining the Revisor’s decision not to include certain language from a statutory provision in the U.S. Code).

¹²⁸ 1 U.S.C. § 202.

¹²⁹ 1 U.S.C. §§ 211 & 212.

¹³⁰ 2 U.S.C. § 285b.

¹³¹ Office Of The Law Revision Counsel, United States House Of Representatives, Draft 55 U.S.C. § 211111(d), online at <http://uscode.house.gov/codification/t55/bill.pdf>.

¹³² *Id.*

In preparing a positive law codification, the Revisor “actively seeks input from *Federal agencies*, congressional committees, and others with expertise in the area of law.”¹³³ The Revisor prepared a document detailing changes and corrections that it recommended, but no such change or correction recommendation was identified for Section 111(d).¹³⁴ Thus, after considering all of the relevant input, the Revisor again rejected EPA’s construction.

To allow EPA to draw on the deferential *Chevron* standard to override or second-guess the ordinary process of the Office of Law Revision Counsel would raise the gravest separation of powers concerns. The Supreme Court has steadfastly refused to look behind the evidence of an enrolled bill to inquire whether the journals of Congress support the enactment: The enrolled bill is dispositive proof in itself.¹³⁵ The Court warned of the uncertainty and instability that would result if interested persons were “required to hunt through the journals of a legislature to determine whether a statute, properly certified by the speaker of the house and the president of the senate, and approved by the [executive], is a statute or not.”¹³⁶ Such an intrusion into the legislative process is well outside the authority of the Executive Branch. Nor would it be a proper exercise of the Judicial Power.

Here, EPA creates revisionist history to bypass the clear wording of the U.S. Code and the Statutes at Large and to construe for its own benefit a clerical amendment that the Revisor of

¹³³ Office Of The Law Revision Counsel, United States House Of Representatives, Positive Law Codification In The United States Code at 3 (emphasis added).

¹³⁴ Law Revision Counsel, Discussion Draft, Explanation Of H.R. _____, To Enact Certain Laws Relating To The Environment As Title 55, United States Code, “Environment” (2014), available at <http://uscode.house.gov/codification/t55/exp.pdf>.

¹³⁵ See *Marshall Field & Co. v. Clark*, 143 U.S. 649, 670-80 (1892) (holding that federal courts will not inquire into whether an enrolled bill was the bill actually passed by Congress).

¹³⁶ *Id.* at 677 (quoting *Weeks v. Smith*, 81 Me. 538, 547 (1889)).

the Code specifically said “could not be executed.”¹³⁷ EPA wishes to engage the deferential second step of the *Chevron* analysis in order to *create* an ambiguity at the first step that otherwise would not exist. Such a rearrangement of the *Chevron* steps is no mere matter of etiquette: it ignores the fact that “[i]t is emphatically the province and duty of the judicial department” – *not* an administrative agency – “to say what the law is.”¹³⁸ The Statutes at Large, properly applied according to the Revisor’s Notes, are unambiguous, leaving no room for *Chevron* step-two deference to authorize a rewriting of the U.S. Code (which is likewise unambiguous).¹³⁹

4. EPA’s *Chadha* Argument Lacks Merit.

Nor is there any basis for impeaching the Revisor’s judgment under *I.N.S. v. Chadha*¹⁴⁰ on the spurious ground that the Revisor somehow overrode the legal text approved by Congress and signed by the President. Both bicameralism and presentment were fully satisfied when the President signed the substantive House amendment enacted by both Houses after the Senate receded from its amendment. The Revisor accurately codified the legal texts enacted by Congress. Accordingly, no court has ever found a *Chadha* violation in the dozens of legislative situations that are just like this one.

5. EPA’s Interpretation Raises Grave Constitutional Questions Under Article I, Article III, And The Separation Of Powers.

¹³⁷ Revisor’s Note, 42 U.S.C. § 7411.

¹³⁸ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177 (1803).

¹³⁹ Cases like *Citizens to Save Spencer County v. EPA*, 600 F.2d 844 (D.C. Cir. 1977), are therefore inapposite. *Citizens to Save Spencer County* involved two provisions that were mutually exclusive – namely, two different statutory dates for a deadline. *Id.* at 860. The court observed that “each of the two sections of the statute at issue is clear, and it is equally clear that their provisions do not coincide.” *Id.* at 870. That was also the upshot of *Scialabba v. Cuellar de Osorio*, 134 S. Ct. 2191, 2203 (2014) (plurality opinion); *id.* at 2219 n.3 (Sotomayor, J., joined by Breyer, J., dissenting). In contrast, there are no conflicting provisions here, much less mutually exclusive ones.

¹⁴⁰ 462 U.S. 919 (1983).

If EPA were permitted to choose which of the two supposed versions of Section 111(d) it preferred to enforce, the agency would move beyond its proper role of ensuring that the law is faithfully *executed* and would instead assume *lawmaking* power. If there really *were* two different versions of Section 111(d), and if EPA were free to pick and choose which version it wanted to enforce, then EPA would be going well beyond its duty to execute the law duly enacted by Congress and instead would be fabricating an impermissibly broad delegation of authority for itself and then acting on it — in effect, bootstrapping itself into the power to “make law.”¹⁴¹

To be clear, this argument bears no resemblance to the usual non-delegation objection, where the claim is that Congress, in the specific federal statute at issue, has provided an agency with an insufficiently intelligible principle to guide the agency’s decisionmaking and to assist the court in reviewing the agency’s actions thereunder. Here, in contrast, the point is that EPA violates the separation of powers when it insists that there are two candidates competing to play the role of the “real” Section 111(d) and thus competing for recognition as the law of the land. The constitutional objection therefore is not to a *congressional decision to leave excessive authority to an agency* (in violation of a non-delegation constraint) but to *the agency’s remarkable assertion that it enjoys a free-standing power to choose for itself which statute Congress in fact enacted and which, therefore, the agency will enforce*.

This objection does not rest on an arguably antiquated view that courts or, for that matter, agencies, mechanically and robotically “apply” the law as they find it, exercising no discretion or judgment in the process of interpretation; in a colloquial sense, of course courts and agencies alike “make” law all the time when they interpret a statute one way rather than another. But it is

¹⁴¹ See *Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 473 (2001) (“The very choice of which portion of the power to exercise . . . would itself be an exercise of the forbidden legislative authority.”).

one thing to exercise judgment in interpreting a statute's words and another thing altogether to determine which of two competing texts is the actual statute under interpretation. The Sarbanes-Oxley Act and the Federal False Statements Act each requires interpretation; but deciding which Act is which is a different kettle of fish.¹⁴²

So too, for an agency to assert the power to decide which statute Congress actually enacted usurps either the role of the Article I lawmaking branch or the role of the Article III judicial branch, or, more likely, both. “[T]he lawmaking function belongs to Congress” and may not be appropriated by “another branch or entity.”¹⁴³ As the Supreme Court stated just last year in *Utility Air Regulatory Group*, “Under our system of government, Congress makes laws and the President, acting at times through agencies like EPA, ‘faithfully execute[s]’ them.”¹⁴⁴ The Court added that “[a]gencies exercise discretion only in the interstices created by statutory silence or ambiguity.”¹⁴⁵

The Court has denied *Chevron* deference when there was no delegation of authority by Congress to the agency, and it has made clear that “administrative implementation of a particular statutory provision qualifies for *Chevron* deference when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law.”¹⁴⁶ Even if

¹⁴² See *Yates v. United States*, No. 13-7451, 2015 WL 773330, *4 n.1 (U.S. Feb. 25, 2015) (holding that tossing out undersized fish to avoid detection for violating federal conservation regulations is not a violation of Sarbanes-Oxley’s ban on destroying, covering up, or concealing any “record, document, or tangible object” to obstruct federal investigation, and opining that 18 USC §1001(a)(2), the statute criminalizing making a false statement to federal law enforcement officers, is “irrelevant to our analysis”).

¹⁴³ *Loving v. United States*, 517 U.S. 748, 758 (1996).

¹⁴⁴ *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2446 (2014).

¹⁴⁵ *Id.* at 2445.

¹⁴⁶ *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2000); see also *EEOC v. Arabian American Oil Co.*, 499 U.S. 244, 257 (1991) (declining to apply *Chevron* deference to agency guideline where congressional delegation did not include “authority to promulgate rules or regulations” (quoting *General Electric Co. v. Gilbert*, 429 U.S. 125, 141 (1976)); *Adams Fruit Co., Inc. v. Barrett*, 494 U.S. 638, 649 (1990) (rejecting application of

there were ambiguity here – and there is not – mere ambiguity in a statute is not evidence of congressional delegation of authority. “[F]or *Chevron* deference to apply, the agency must have received congressional authority to determine the particular matter at issue in the particular manner adopted.”¹⁴⁷

Hence, even if Congress had indeed enacted two different versions of Section 111(d) in 1990 (which it did not), EPA’s reading of *Chevron* would endow it with a wholly extra-constitutional latitude to choose freely between them. *Chevron* allows an agency to resolve ambiguities *in the terms of a statute*, not to choose *which of two competing versions of a statute* the agency wishes to make legally operative. The latter task is the exclusive responsibility of the legislature, subject to judicial interpretation by the courts. By choosing to execute what it describes as the “Senate” version of Section 111(d), EPA is choosing to effectively repeal or to nullify the “House” version. Needless to say, *not even Congress* is authorized to legislate by tossing two substantively different versions of a law into the air and empowering an executive agency to decide which one to catch and run with.

Under Article I and the separation of powers, “the lawmaking function belongs to Congress” and may not be handed off to or appropriated by “another branch or entity.”¹⁴⁸ “Legislative power is nondelegable. Congress can no more ‘delegate’ some of its Article I power to the Executive than it could ‘delegate’ some to one of its committees. What Congress does is to *assign responsibilities* to the Executive”¹⁴⁹ The distinction is between

Chevron because “[a] precondition to deference under *Chevron* is a congressional delegation of administrative authority”).

¹⁴⁷ *City of Arlington, Tex. v. FCC*, 133 S. Ct. 1863, 1874 (2013).

¹⁴⁸ *Loving v. United States*, 517 U.S. 748, 758 (1996).

¹⁴⁹ *Id.* at 777 (Scalia, J., concurring in part and concurring in the judgment).

impermissible delegation of *lawmaking* functions and permissible delegations of responsibility to *execute or administer* the laws:

The true distinction . . . is between the delegation of power to make the law, which necessarily involves a discretion as to what it shall be, and conferring authority or discretion as to its execution, to be exercised under and in pursuance of the law. The first cannot be done; to the latter no valid objection can be made.¹⁵⁰

This bedrock principle, familiar to anyone who has taken a basic civics class in high school, has particular relevance when administrative agencies seek to expand their statutory mandates via *Chevron* deference. Here, EPA is flagrantly refusing to execute the House version of Section 111(d) and is instead seeking to operate as a junior-varsity unicameral legislature. As Justice Kennedy has opined, “[i]f agencies were permitted unbridled discretion, their actions might violate important constitutional principles of separation of powers and checks and balances. To that end the Constitution requires that Congress’ delegation of lawmaking power to an agency must be ‘specific and detailed.’”¹⁵¹

As everyone now knows, the requirement of “specific and detailed” delegations is sometimes applied loosely, and broad delegations have become increasingly common. But it would be a category error of the first order to confuse a broad delegation of power to carry into effect a law Congress has enacted with a wholly different species of being – a “delegation” of completely unfettered power simply to select *which of two laws* to carry into effect. If Congress could empower an agency to pick which of *two* measures to treat as law, then it could empower an agency to pick which of *two thousand measures* to make into law. Indeed, come to think of it,

¹⁵⁰ *Id.* at 758-59 (majority opinion) (quoting *Marshall Field & Co. v. Clark*, 143 U.S. 649, 693-94 (1892)) (alteration in original).

¹⁵¹ *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 536 (2009) (Kennedy, J., concurring in part and concurring in the judgment) (quoting *Mistretta v. United States*, 488 U.S. 361, 374 (1989)).

why not simply empower the agency to write an entirely *new* measure, picking from the infinite range of available options?

The only way to avoid that unthinkable conclusion is to avoid taking the first step down that illegitimate path and to find that EPA may not arrogate to itself the authority to choose between two different versions of a statutory provision—each of which (according to the agency) is legally operative. The Constitution would not permit even Congress to expressly delegate to the EPA the kind of law-selecting authority EPA is claiming for itself here; *a fortiori*, the EPA cannot claim such authority where Congress has not remotely *purported* to make such an unconstitutional delegation.

D. EPA’s “Gap-Filling” Argument Has No Merit: There Is No “Gap” To Fill, But If There Were, Only Congress, Not EPA, Would Have Constitutional Authority To Fix It.

In the end, EPA resorts to arguing that it has implied power to ensure that there are “no gaps” in Clean Air Act regulation. But administrative agencies lack any such “implied” or “inherent” powers; they are creatures of statute and possess only the authority Congress has given them. Moreover, there is no “gap” in authority here. EPA has ample power to regulate electric generating units under the Clean Air Act. It has regulated them pursuant to Section 112 since 2000. In addition, for listed criteria pollutants from national sources, Sections 108-110 authorize EPA to set ambient air standards.

Here, EPA’s approach would license duplicative regulation of source categories under Section 111(d) in direct violation of the language of the 1990 Amendments. It would create the danger of a host of technical, feasibility, and cost concerns. In the case of electric generating plants, duplicative regulation also carries implications for electrical reliability. Accordingly, in 1990 EPA officials testified to Congress that imposing double regulation on existing sources,

even for different pollutants, would be “ridiculous.”¹⁵² When Congress considered redundant regulation in certain limited areas, as for example in the context of whether and how EPA could doubly regulate power plants under both Section 112 for hazardous pollutants and Title IV for sulfur dioxide, there was substantial congressional debate and negotiation.¹⁵³ In contrast, there is no evidence whatsoever that Congress intended duplicative regulation of source categories under Section 111(d) and Section 112.

Moreover, Section 111(d) would be a most peculiar provision to select for serving any such “gap-filling” function. As explained by Sen. David Durenberger, a leading Senate architect of the 1990 Amendments, Section 111(d) was considered to be “some obscure, never-used section of the law.”¹⁵⁴ By EPA’s own count, it has used the section to regulate only four pollutants and five sources (such as methane emissions from municipal landfills)¹⁵⁵ — and none remotely on the scale of CO₂. All of these situations involve unique, localized pollutants, such as sulfuric acid, emitted from distinctive sources, like a sulfuric acid plant. None of them concerns a ubiquitous, benign substance like CO₂ emitted from sources throughout the nation and indeed the globe, rather than from discrete local sources. None of them sought to revolutionize the U.S. energy sector, as EPA’s latest rule does, and none required States to coordinate their energy and emissions policies with each other, as they are inextricably linked through the electric

¹⁵² Energy Policy Implications of the Clean Air Act Amendments of 1989: Hearings Before the S. Cmte. on Energy and Natural Res. 101st Cong. 603 (1990).

¹⁵³ See, e.g., Energy Policy Hearing at 7, 234–35, 240–41, 436–37, 483, 485, 492, 570–72, 596, 603 (1990) (hereinafter); Air Pollution — 1970: Hearings on S. 3229, S. 3466, and S. 3546 Before the Subcmte. on Air & Water Pollution of the S. Cmte. on Public Works, 91st Cong. 112–13, 116–17, 131–36, 151–56, 158–59, 164, 388–89, 1487–1533 (1970).

¹⁵⁴ Clean Air Act Amendments of 1987: Hearings on S. 300, S. 321, S. 1351, and S. 1384 Before the Subcmte. on Envtl. Prot. of the S. Cmte. on Env’t and Public Works, 100th Cong. 13 (1987).

¹⁵⁵ See *Carbon Pollution Emission Guidelines for Existing Stationary Sources*, 79 Fed. Reg. at 34,844 (“Over the last forty years, under CAA section 111(d), the agency has regulated four pollutants from five source categories (i.e., sulfuric acid plants (acid mist), phosphate fertilizer plants (fluorides), primary aluminum plants (fluorides), Kraft pulp plants (total reduced sulfur), and municipal solid waste landfills (landfill gases)).”).

distribution grid. Indeed, there has only been a single instance of Section 111(d) regulation after the 1990 Amendments, a regulation involving municipal landfills, which had already been subject to regulation prior to 1990. The rule was grandfathered in, so to speak. Hence, the history of Section 111(d) provides no inkling that it could serve as the ambitious, “gap-filling” provision that EPA now maintains.

Past rules issued under Section 111(d) have never contemplated – much less required – interstate compacts or coordination, as EPA’s latest proposal does. It is one thing to direct a State to set limits on landfill emissions. It is quite another to command a State to coordinate its energy and emissions policies with every other State with which it is inextricably linked through the power distribution system. The current proposal entails a completely different level of complexity and interstate interconnectedness than have prior rules – and a level that could never have been contemplated in 1990. There is not a shred of evidence that Congress ever expected Section 111(d) to be applied to impose a reconfiguration of the interstate power network, as opposed to merely requiring augmented pollution controls at a particular source like a landfill or aluminum factory.

The stark disconnect between the obscure nature of Section 111(d) and the revolutionary character of EPA’s proposal is itself telling. Just last Term, in *Utility Air Regulatory Group v. EPA*, the Supreme Court voiced powerful concerns regarding EPA’s attempt to effect a radical expansion of its authority via a minor statutory provision:

EPA’s interpretation is also unreasonable because it would bring about an enormous and transformative expansion in EPA’s regulatory authority without clear congressional authorization. When an agency claims to discover in a long-extant statute an unheralded power to regulate “a significant portion of the American economy,” we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an

agency decisions of vast “economic and political significance.”¹⁵⁶

The text, structure, and history of Section 111 all demonstrate that EPA’s proposal lacks any statutory basis and indeed flies in the face of an express statutory prohibition. Moreover, EPA’s attempt to generate such a basis by fabricating an “ambiguity” within Section 111 creates serious constitutional questions under the separation of powers, Article I, and Article III.

¹⁵⁶ 134 S. Ct. at 2444.

CONCLUSION

EPA's proposal exceeds its statutory and legal authority and would raise serious constitutional questions that require rejecting its attempt at reconfiguring the nation's energy landscape as an egregious instance of executive overreach. Its plan runs afoul of democratic precepts and rule of law principles. The agency seeks to make "high policy" via an expansive reading of statutory silence and, worse yet, in the face of an express statutory prohibition on its authority. Congress, not an unelected agency, is the proper body to make the value judgments and decide the tradeoffs implicated by EPA's plan.



U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.
Washington, DC 20548

B-326944

December 14, 2015

The Honorable James M. Inhofe
Chairman
Committee on Environment and Public Works
United States Senate

Subject: *Environmental Protection Agency—Application of Publicity or Propaganda and Anti-Lobbying Provisions*

Dear Mr. Chairman:

This responds to your request for our opinion concerning whether the Environmental Protection Agency's (EPA) use of certain social media platforms in association with its "Waters of the United States" (WOTUS) rulemaking in fiscal years (FY) 2014 and 2015 violated publicity or propaganda and anti-lobbying provisions contained in appropriations acts. Letter from Chairman, Committee on Environment and Public Works, United States Senate, to Comptroller General (June 16, 2015).

Section 718 of the Financial Services and General Government Appropriations Act, 2014, prohibited the use of EPA's appropriations for unauthorized publicity or propaganda purposes.¹ Section 715 of the act prohibited the use of EPA's appropriations for indirect or grassroots lobbying in support of or opposition to pending legislation.² These same restrictions applied to EPA's FY 2015 appropriations.³ Section 401 of the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015, similarly prohibited the use of EPA's appropriations for grassroots lobbying.⁴

¹ Pub. L. No. 113-76, div. E, title VII, § 718, 128 Stat. 5, 234 (Jan. 17, 2014).

² *Id.*, § 715.

³ Pub. L. No. 113-235, div. E, title VII, §§ 715, 718, 128 Stat. 2130, 2382-83 (Dec. 16, 2014).

⁴ *Id.*, § 401.

In accordance with our regular practice, we contacted EPA to seek factual information and its legal views on this matter. Letter from Assistant General Counsel for Appropriations Law, GAO, to General Counsel, EPA (July 10, 2015); *Procedures and Practices for Legal Decisions and Opinions*, GAO-06-1064SP (Washington, D.C.: Sept. 2006), available at www.gao.gov/products/GAO-06-1064SP. In response, EPA provided its legal analysis and electronic access to factual documentation. Email from Interim Secretary, EPA, to Managing Associate General Counsel, et al., GAO, *Subject: EPA Response to GAO regarding social media* (Aug. 7, 2015) (providing access to SharePoint site); EPA, Associate General Counsel Memorandum for General Counsel, *Analysis in response to an inquiry from the Government Accountability Office regarding EPA use of Social Media and the Clean Water Rule* (Aug. 6, 2015) (EPA Response).

As explained below, we conclude that EPA violated the described provisions through its use of social media in association with its rulemaking efforts to define "Waters of the United States" under the Clean Water Act (CWA) during FYs 2014 and 2015. Because EPA obligated and expended appropriated funds in violation of statutory prohibitions, we also conclude that EPA violated the Antideficiency Act, 31 U.S.C. § 1341(a)(1)(A), as the agency's appropriations were not available for these prohibited purposes.

EPA did not quantify an exact cost associated with the use of any particular social media platform. The agency noted that staff is paid for time spent developing and posting a message but time is not tracked by platform or project. EPA Response, at 3. EPA explained to us that it spent \$64,610 on video and graphic assets to raise awareness surrounding the proposed rule, but it does not appear to us that the aspects of EPA's campaign with which we have concerns would involve these video and graphic assets. *Id.* The agency should determine the cost associated with the prohibited conduct and include the amount in its report of its Antideficiency Act violation.

BACKGROUND

In March 2014, EPA and the Army Corps of Engineers released a proposed rule defining the scope of waters protected under the CWA to "provid[e] clarity" and to minimize the number of case-specific determinations made by regulators, which, according to the agencies, had increased following two Supreme Court decisions.⁵ 79 Fed. Reg. 22188 (Apr. 21, 2014).⁶ The public comment period was initially set to

⁵ *Rapanos v. United States*, 546 U.S. 932 (2006); *Solid Waste Agency of Northern Cook Cty. v. Army Corps of Engineers*, 531 U.S. 159 (2001).

⁶ See EPA, *News Releases – Water, EPA and Army Corps of Engineers Clarify Protection for Nation's Streams and Wetlands* (Mar. 25, 2014), available at http://www.epa.gov/pressroom/2014/03/20140325_01 (continued...)

expire on July 21, 2014, but was ultimately extended until November 14, 2014.⁷ According to EPA, the agency used social media platforms in connection with the WOTUS rulemaking from February 2014 through July 2015. EPA Response, at 2. To understand how EPA used social media platforms, it is necessary to understand how the various platforms facilitate communications among their users. Social media platforms, like Facebook, Twitter, and Tumblr, enable users to create and share content, like messages and photos. This content becomes archived on each user's individual page or "timeline." When users log into a social media platform, they see a "newsfeed" or "dashboard," which is a real-time aggregate of the recent content of other users that they follow on the network. While we describe social media platforms at a basic level, we note that there are variations and distinct capabilities associated with different forums.

EPA explained to us that through social media, it sought to clarify the issues concerning the WOTUS proposed rule, to provide information about streams and wetlands, to demonstrate the rule's relevance, to provide opportunities for public engagement, and to correct what it viewed as misinformation concerning the rule. *Id.*, at 2. For ease of discussion in this opinion, we describe EPA's social media campaign using four categories: Thunderclap, the #DitchtheMyth Campaign, the #CleanWaterRules Campaign, and EPA's Links to External Websites.

1. EPA's Use of Thunderclap

Thunderclap is a "crowdspeaking platform" that allows a single message to be shared across multiple Facebook, Twitter, and Tumblr accounts at the same time. Thunderclap, *FAQ*, available at www.thunderclap.it/faq (last visited Dec. 7, 2015). The website allows what the site calls "campaign organizers" to create a Thunderclap page. The Thunderclap page is used to describe the organizer's social media campaign, including a message of no more than 117 characters to be shared by those who sign up to support the campaign. Thunderclap, *Getting Started*, available at www.thunderclap.it/guide (last visited Dec. 7, 2015). Each organizer selects what the site calls a "supporter goal" (for example, 500 supporters). If the campaign reaches the supporter goal, Thunderclap will automatically post the message on the social media accounts of the campaign's supporters on the same date and at the same time. The date and time are chosen by the campaign

(...continued)

<http://yosemite.epa.gov/opa/admpress.nsf/3881d73f4d4aaa0b85257359003f5348/ae90dedd9595a02485257ca600557e30> (last visited Dec. 7, 2014).

⁷ 79 Fed. Reg. 22188; 79 Fed. Reg. 35712 (June 24, 2014) (extending public comment period to October 20, 2014); 79 Fed. Reg. 61590 (Oct. 14, 2014) (extending public comment period to November 14, 2014).

organizer. Thunderclap will post the message as drafted by the organizer, although an individual supporter has the option of customizing the message when signing up for a campaign.

During the public comment period for the WOTUS proposed rule, EPA created a Thunderclap campaign page titled, "I Choose Clean Water." The page was visibly attributed to EPA, as it displayed the agency's profile photo and, under the title, "by U.S. Environmental Protection Agency." The Story section of the page describing the campaign read as follows:

"Clean water is important – for drinking, swimming, and fishing. We need it for our communities, farms, and businesses. But right now 60 percent of the streams and millions of acres of wetlands across the country aren't clearly protected from pollution and destruction. In fact, one in three Americans—117 million of us—get our drinking water from streams that are vulnerable. To have clean water downstream in the rivers and lakes in our neighborhoods we need healthy headwaters upstream. EPA and the U.S. Army Corps of Engineers has [sic] proposed to strengthen protection for the clean water that is vital to all Americans."⁸

If EPA met its goal of 500 supporters, Thunderclap would post the following message to supporter accounts: "Clean water is important to me. I support EPA's efforts to protect it for my health, my family, and my community. <http://thndr.it/1sLh51M>." At the time of the campaign, the hyperlink⁹ connected to EPA's webpage on the proposed rule.¹⁰

⁸ EPA, *I Choose Clean Water*, Thunderclap, available at www.thunderclap.it/projects/16052-i-choose-clean-water (last visited Dec. 7, 2015) (EPA Thunderclap).

⁹ A hyperlink is text or a photo in a document or webpage that when clicked, connects to another webpage, section, or document.

¹⁰ This opinion focuses on the Thunderclap message created by EPA, despite the possibility that supporters could have altered or otherwise customized the message when joining the campaign. Further, depending on the forum authorized by the campaign supporter (Facebook, Tumblr, and/or Twitter), the posted message may have been accompanied by a photo of a child drinking water or other text. As we cannot be certain of every variation of the Thunderclap message that was posted, or how or why one message may have appeared differently than others, our discussion concerns EPA's message as included on its campaign page, "Clean water is important to me. I support EPA's efforts to protect it for my health, my family, and
(continued...)"

EPA actively promoted its Thunderclap campaign by encouraging people to sign up and to spread the word so that others might sign up as well. See, e.g., Communications Director for Water, *Do You Choose Clean Water?*, The EPA Blog (Sept. 9, 2014), available at <http://blog.epa.gov/blog/2014/09/do-you-choose-clean-water/> (last visited Dec. 7, 2015). The EPA blog post announcing the campaign stated, after explaining that the greater protection proposed was necessary to ensure clean water, “We hope you’ll support our clean water proposal. To help you do that, and get your friends to also voice their support, we’re using a new tool called Thunderclap; it’s like a virtual flash-mob.” *Id.* Leading up to the post date for the Thunderclap message, EPA’s Twitter and Facebook accounts advertised the campaign with posts like, “Help us send a strong message about supporting clean water,” “Tell your friends that you choose clean water: let Thunderclap send a message,” and “Help us spread the word about the importance of clean water. We need 500 people to sign up to share the message.”

EPA met and exceeded its supporter goal, causing Thunderclap to post the agency’s message on 980 social media accounts on September 29, 2014, at 2 p.m. Based on the followers and friends of these supporters, Thunderclap estimates that EPA’s message potentially reached about 1.8 million people.

2. EPA’s #DitchtheMyth Campaign

In another social media effort, EPA attempted to dispel what it views as inaccuracies on the rule being circulated by external interest groups. For this purpose, EPA created a hashtag (#): #DitchtheMyth.¹¹ The #DitchtheMyth campaign included graphics regarding aspects of the rule, along with statements that people could tweet using their own Twitter accounts. The Ditch the Myth website showed as a “Myth,” for example, that “[g]roundwater is regulated by the Clean Water Act.” Below the “Myth,” EPA included what it called a “Truth”—in this example: “The proposed

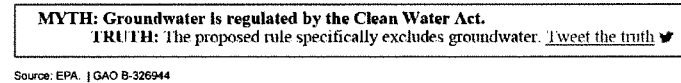
(...continued)

my community,” with the link to EPA’s webpage on its proposed rule. EPA Thunderclap.

¹¹ Including the hashtag symbol before a word, without spaces, allows users to click on the hashtagged phrase and see other posts that have used the same hashtag. Users can also perform searches for a hashtag to locate relevant posts. Hashtags that become very popular can become “Trending Topics,” which may highlight or elevate the hashtag’s visibility on users’ newsfeeds. Twitter, *Using hashtags on Twitter*, available at <http://support.twitter.com/articles/49309#> (last visited Dec. 7, 2015).

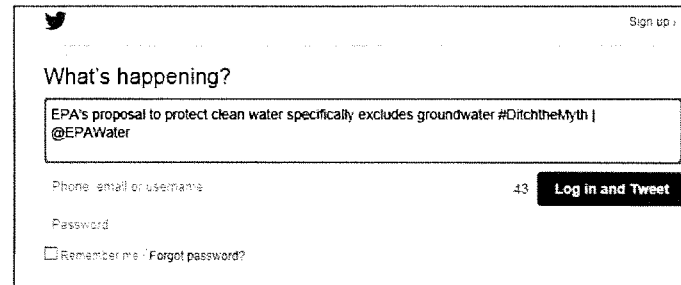
rule specifically excludes groundwater”—followed by a hyperlink of the phrase “Tweet the truth.”¹² See below:

Figure 1: Image from EPA’s Ditch the Myth Webpage



Clicking the hyperlinked phrase “Tweet the truth” generated a Twitter window with the “Truth” statement followed by “#DitchtheMyth | @EPAWater[:]”

Figure 2: Screenshot of GAO-Generated Tweet



Twitter users could share the statement as displayed or alter the message. Each of the graphics (a feature separate from the tweets) included EPA’s Ditch the Myth website as well as the agency’s logo, and EPA describes the inclusion of its Twitter handle, @EPAWater, at the end of the prewritten tweets, as a byline.

3. EPA’s #CleanWaterRules Campaign

On April 7, 2015, EPA’s Communications Director for its Office of Water created an EPA blog post called “Tell Us Why #CleanWaterRules.”¹³ The post initiated the

¹² EPA’s Ditch the Myth website no longer exists. We accessed the #DitchtheMyth content through documents provided to us by EPA.

¹³ Leland E. Beck, *Monday Morning Regulatory Review – 4/13/15*, Federal Regulations Advisor (Apr. 12, 2015), available at

(continued...)

agency's #CleanWaterRules social media campaign. The Communications Director states that "[w]e can't protect our rivers, lakes, and coastal waters if we don't protect our streams and wetlands," and notes that the best thing people can do for clean water is to "spread the word about how much it matters." He suggested that people do this by posting a photo holding a #CleanWaterRules sign to Facebook, Twitter, or Instagram, with the #CleanWaterRules hashtag and a reason why clean water rules. EPA's social media accounts used this hashtag in numerous messages describing the importance of clean water and the protections in the rule.

4. EPA's Links to External Websites

The EPA blog post described above also included hyperlinks to a Natural Resources Defense Council (NRDC) webpage and to a Surfrider Foundation blog post.¹⁴ In the EPA blog post, EPA's Communications Director for Water describes why "clean water rules," two reasons being because he is a surfer and because he is a beer drinker.

He notes that as a surfer, he "[doesn't] want to get sick from pollution." The phrase "sick from pollution" hyperlinks to a Surfrider Foundation blog post, "Five reasons why surfers are more likely to get sick from polluted ocean water than beach

(...continued)

www.fedregsadviser.com/2015/04/12/ (last visited Dec. 7, 2015) (Fed. Reg. Adviser); Communications Director for Water, *Tell Us Why #CleanWaterRules*, EPA Blog (Apr. 7, 2015), available at <http://blog.epa.gov/blog/2015/04/tell-us-why-cleanwaterrules/> (last visited Dec. 7, 2015) (EPA Blog Post).

¹⁴ NRDC describes itself an environmental action group operating under section 501(c)(3) of the tax code. NRDC, *About NRDC: NRDC Action Fund*, available at www.nrdc.org/about/actionfund.asp (last visited Dec. 7, 2015) (NRDC Action Fund). The organization asserts that it "mobilize[s] the public in direct action campaigns that have produced millions of petitions to . . . government agencies." NRDC, *About NRDC: Finances*, available at www.nrdc.org/about/finances.asp (last visited Dec. 7, 2015). The NRDC website also states that "[t]he NRDC Action Fund works to support pro-environment legislation and defeat anti-environment legislation through paid advertising and phonebanking and by mobilizing grassroots pressure." NRDC Action Fund. The Surfrider Foundation also operates under section 501(c)(3) of the tax code. It describes itself as a grassroots environmental organization whose mission is to "protect[] oceans, waves and beaches through a powerful activist network." Surfrider Foundation, *Surfrider Foundation FAQ*, available at www.surfrider.org/images/uploads/publications/FAQ_2015.pdf (last visited Dec. 7, 2015).

goers.”¹⁵ In a column adjacent to the Surfrider blog post is a “Take Action” section containing a link button (“Get Involved”) with the description, “Defend the Clean Water Act. Tell Congress to stop interfering with your right to clean water!” We include below the Surfrider Foundation blog post hyperlinked in the EPA blog.¹⁶

Figure 3: Screenshot of Surfrider Foundation Blog Post



Source: Surfrider Foundation. | GAO B-326944

The “Get Involved” button leads to an action page. When we visited the page on June 5, 2015, the action page stated:

“Federal lawmakers in DC are trying to prevent the Environmental Protection Agency from restoring Clean Water Act (CWA) protection for nearly 20 million acres of wetlands, two million miles of streams,

¹⁵ Chad Nelsen, Surfrider Foundation, *Five reasons why surfers are more likely to get sick from polluted ocean water than beach goers* (July 30, 2010), available at www.surfrider.org/coastal-blog/entry/five-reasons-why-surfers-are-more-likely-to-get-sick-from-polluted-ocean-water (last visited Dec. 7, 2015) (Surfrider Blog Post).

¹⁶ This screenshot was taken on September 15, 2015. We note that the Surfrider Foundation has since redesigned its website. The “Take Action” column, along with the other information in side bar, no longer appears alongside the blog posts.

and the drinking water for 117 million Americans. Members of both the U.S. Senate and the House of Representatives have proposed attaching 'dirty water' riders to spending bills to block the EPA's efforts.

"These small streams and wetlands need our protection as they impact the quality and health of downstream waters, and ultimately our coasts and the ocean. Clean water at the beach starts with healthy waters upstream.

"Tell Congress to stand strong for clean water and oppose any amendments that undermine the Clean Water Act in appropriations legislation."

We visited the Surfrider blog post again on September 15, 2015. The text of the action page linked through the "Get Involved" button had changed to state the following, along with an associated form letter for submission:

"Congress is considering legislation to prevent the Environmental Protection Agency from implementing the recent Clean Water Rule, despite the fact that 80% of Americans support this science-based decision.

"The Clean Water Rule is necessary to protect nearly 20 million acres of wetlands and two million miles of streams that provide drinking water for 117 million Americans and support healthy water downstream at the beach.

"Tell Congress to listen to the American public instead of industry polluters and oppose any legislation or spending bills that would undermine the Clean Water Rule."

In June and July 2014, provisions that would prohibit the use of appropriated funds in connection with the proposed rule were introduced in the Army Corps of Engineers' and EPA's FY 2015 appropriations bills, but were not ultimately enacted. H.R. 4923, 113th Cong., § 106 (2014); H.R. 5171, 113th Cong., § 429 (2014). In June 2015, a similar provision was proposed for inclusion in EPA's FY 2016 appropriations bill. See H.R. 2822, 114th Cong., § 422 (2015).

Regarding beer, the EPA blogger explains that "brewers depend on a reliable supply of clean water," and that "there is an alliance of brewers speaking out for clean water." The phrase "alliance of brewers" hyperlinks to an NRDC page, "Brewers for Clean Water." NRDC, *Brewers for Clean Water*, available at www.nrdc.org/water/brewers-for-clean-water/ (last visited Dec. 7, 2015) (Brewers Alliance Page). In a box embedded alongside the text of the Brewers for Clean Water page, describing NRDC's partnership with breweries to defend the CWA, is

an orange link button ("Add Your Voice and Help Make Great Beer") leading to an action page. We include below the NRDC webpage hyperlinked in the EPA blog.¹⁷

Figure 4: Screenshot of NRDC Webpage



Source: NRDC. | GAO B-326944

The action page states the following:

"We shouldn't have to worry if the water sources we rely on for drinking, fishing, and swimming are polluted. But a legal loophole has undermined the Clean Water Act safeguards that are supposed to prevent big polluters from dumping dangerous pollutants into our waters.

"The Environmental Protection Agency and the Army Corps of Engineers are ready to make important changes to close this loophole, but polluters and their allies in Congress could try to block them from moving forward. You can step up to help stop the polluter attack on these needed clean water safeguards.

¹⁷ This screenshot was taken on September 15, 2015.

“Protect clean water. Urge your senators to defend Clean Water Act safeguards for critical streams and wetlands.”

Below the text is a form for readers to send to their senators, urging support for the “Clean Water Protection Rule.”

At the time of EPA’s April 7, 2015 blog post, the Waters of the United States Regulatory Overreach Protection Act of 2015 was pending in the House. H.R. 594, 114th Cong. (2015). If enacted, the provision would prevent implementation of the WOTUS proposed rule. The Regulatory Integrity Protection Act of 2015, which would require withdrawal of the rule, was introduced in the House on April 13, 2015. H.R. 1732, 114th Cong. (2015). Several other proposed measures that would similarly impact the rule were pending at or near the time of EPA’s blog post.

As of December 2015, the EPA blog post continues to hyperlink to the Surfrider Foundation blog post and the NRDC Brewers for Clean Water webpage.

DISCUSSION

At issue here is whether EPA violated publicity or propaganda and anti-lobbying provisions concerning the use of its FY 2014 and FY 2015 appropriations. In this opinion, we first address the publicity or propaganda prohibition, including its application to EPA’s Thunderclap, #DitchtheMyth, and #CleanWaterRules social media campaigns. Then we address the grassroots lobbying prohibition, as applied to the hyperlinks in EPA’s “Tell us why #CleanWaterRules” blog post, which connected to NRDC and Surfrider Foundation webpages containing appeals to readers to contact Congress.

As discussed below, we conclude that EPA’s use of Thunderclap constituted covert propaganda, in violation of the publicity or propaganda prohibition. The agency’s #DitchtheMyth and #CleanWaterRules social media campaigns, however, did not implicate the publicity or propaganda prohibition. We also conclude that EPA hyperlinks to the NRDC and Surfrider Foundation webpages provided in the EPA blog post constitute grassroots lobbying, in violation of the grassroots lobbying prohibition.

A. Publicity or Propaganda

Section 718 of the Financial Services and General Government Appropriations Act, 2014, provides: “No part of any appropriation contained in this or any other Act shall be used directly or indirectly, including by private contractor, for publicity or propaganda purposes within the United States not heretofore authorized by Congress.” Pub. L. No. 113-76, div. E, § 718. This same provision appears in section 718 of the Financial Services and General Government Appropriations Act, 2015. Pub. L. No. 113-235, div. E, § 718.

EPA's activities raise issues concerning two forms of restricted communications: covert propaganda and self-aggrandizement. Covert propaganda refers to communications that fail to disclose the agency's role as the source of information. B-320482, Oct. 19, 2010. Communications tending to emphasize the importance of the agency, its officials, or the activity in question constitute self-aggrandizement. *Id.* See also 31 Comp. Gen. 311 (1952). As explained below, we conclude that EPA's use of Thunderclap constitutes covert propaganda, in violation of the publicity or propaganda prohibition. The #DitchtheMyth social media campaign, however, did not amount to covert propaganda. We also conclude that the #CleanWaterRules social media campaign was not self-aggrandizement.

1. EPA's Use of Thunderclap and the #DitchtheMyth Campaign

Here, because EPA created a Thunderclap message that did not identify EPA as the author to those who would read it when Thunderclap shared the message across social media accounts, we consider whether EPA's use of Thunderclap constituted covert propaganda. The critical element of covert propaganda is the agency's concealment from the target audience of its role in creating the material. B-305368, Sept. 30, 2005 ("A critical element of this violation is the concealment of, or failure to disclose, the agency's role in sponsoring the material"); B-302710, May 19, 2004 ("[F]indings of propaganda are predicated upon the fact that the target audience could not ascertain the information source").

It is not enough that an agency disclose its role to the conduit of such material if it has not taken measures to identify its role to the intended recipient. For example, when the Centers for Medicare and Medicaid Services (CMS) provided prepackaged news videos to news stations to be reproduced without alteration, and did not, within the story or script, identify the agency as the source, we determined that CMS engaged in covert propaganda. B-302710. The labeling of the materials which identified CMS as the source to the news organizations did not identify CMS's role to the viewers. *Id.* Rather, the agency designed the videos to appear to the television viewing audience as though developed by the news stations. *Id.* Similarly, we concluded that suggested editorials prepared by the Small Business Administration (SBA) and distributed to newspapers constituted covert propaganda. B-223098, Oct. 10, 1986. The newspapers printing the editorials would know of SBA's role; however, as the text of the pieces did not identify SBA as the source, the readers would not. *Id.*

A Thunderclap campaign, by its nature, requires supporters for Thunderclap to post the campaign's message. Accordingly, reaching and acquiring these supporters is an inherent objective. For these supporters, EPA's role in the campaign and construction of the message to be shared was evident: EPA advertised the campaign, and the webpage on which supporters joined the campaign was visibly attributed to the agency. Like CMS's prepackaged news videos and its relationship

with television stations, these supporters, while certainly one target audience of the campaign, were not the target audience of the Thunderclap message itself; they were conduits of EPA's message. The message¹⁸ was not written for the supporters who joined the campaign—it was written for their networks of friends and followers who would see the message in their newsfeeds and dashboards when Thunderclap posted on their accounts. This notion is supported by EPA's many social media messages encouraging people to "tell [their] friends," "spread the word" and "help [EPA] send a strong message."

Similar to CMS's prepackaged news videos and SBA's suggested editorials, EPA designed its Thunderclap message so that it could be shared without alteration. While EPA's role was transparent to supporters who joined the campaign, this does not constitute disclosure to the 1.8 million people potentially reached by the Thunderclap. To those people, it appeared that their friend independently shared a message of his or her support for EPA and clean water.

We recognize that by allowing Thunderclap to post EPA's message to their social media accounts, supporters may have adopted the message. But the purpose of the publicity or propaganda prohibition is to ensure that the government identifies itself as the source of its communications. A supporter's adoption or acceptance of EPA's message does not alter the fact that EPA used supporters as conduits of an EPA message campaign intended to reach a much broader audience than just these conduits, and EPA failed to disclose to that broader audience that the message was prepared and disseminated by EPA. EPA constructed a message to be shared by others that refers to EPA in the third person and advocates support of the agency's efforts. In stating "clean water is important to *me*" and "*I* support EPA's efforts," EPA deliberately disassociates itself as the writer, when the message was in fact written, and its posting solicited, by EPA. Compare B-305368 (concluding that contract for positive commentary on the No Child Left Behind Act constituted covert propaganda, despite the commentator's personal belief in the Act), with B-320482 (deciding that contractor's opinion pieces and public statements on healthcare policy did not violate the prohibition, because the agency was not involved in procuring his opinion, nor were the actions taken as part of his contract).

EPA argues that it made no attempt to conceal or otherwise mislead recipients as to its role in creating the information conveyed on social media. EPA Response, at 8. Concerning Thunderclap specifically, the agency notes the campaign was clearly identified as an EPA social media effort. *Id.*, at 10. The agency stipulates that the message retained EPA's identifying information, included reference to EPA, and also linked to the website for the proposed rule, which made it easy for subsequent recipients of the message to discern EPA's involvement. *Id.*

¹⁸ "Clean water is important to me. I support EPA's efforts to protect it for my health, my family, and my community," with a link to EPA's website on the proposed rule.

As we previously noted, EPA made its role evident to those in its social media networks who viewed its posts regarding the campaign and to those who joined the campaign allowing Thunderclap to post on their accounts. But EPA did not identify its role to its ultimate audience. The reference to EPA within the Thunderclap message ("I support EPA's efforts") and the link to the website for the proposed rule did not identify EPA as the creator of the message, or even the Thunderclap campaign, to the 1.8 million viewers. A Thunderclap post is not the equivalent of "retweeting" or sharing another's Facebook post, in which cases the new message would reflect its previous or original author. Generally, retweets and shared Facebook posts make clear from whom the post was derived. Thunderclap posts do not retain identifying information in the same manner as these other forms of sharing. From the post, one could possibly discern that the message was associated with Thunderclap, but even that possibility does not constitute a visible indication to readers that EPA was the source of the statement.

As it relates to the potential 1.8 million viewers of the agency's Thunderclap campaign, EPA argues its message could not be considered covert, because EPA did not contract with the Thunderclap recipients nor conceal its role. As support, the agency cites to our decision concluding that the Department of Defense's (DOD) outreach to Retired Military Officers (RMO) serving as media-analysts did not violate the prohibition. See B-316443, July 21, 2009. EPA's Thunderclap, however, is distinguishable from DOD's outreach to RMOs. DOD sought to influence public opinion of its war policies by providing the RMOs with talking points and information and by organizing meetings and travel. As the opinion emphasized, the agency did not engage RMOs to have them deliver a DOD message to the public. *Id.* Here, however, EPA identified a particular message that it wanted to convey and sought supporters to authorize Thunderclap to deliver that message using their social media accounts. In this way, EPA's use of appropriations is legally indistinguishable from our decisions in which agencies constructed a message intended for a third party to distribute. See, e.g., B-302710; B-223098.

EPA also notes that use of its messages beyond the agency's initial action is outside the scope of the publicity or propaganda prohibition as such use did not involve appropriated funds. EPA Response, at 9–10 (citing B-304829, June 6, 2005). To the contrary, the publicity or propaganda prohibition is concerned with the perception of the 1.8 million viewers. As with our CMS decision where the concern was that a prepackaged news video could be included in a news segment and the viewing audience would not be able to discern the source, here we focus on the message constructed by EPA with appropriated funds, and whether that message identified EPA's role to its target audience. It did not. Similar to the suggested editorials submitted by SBA for newspapers to print for the target audience, the Thunderclap was specifically designed for transmission through an intermediary making that transmission precisely the communication at issue. See B-223098. See also

B-302710. Thus, we find EPA's use of Thunderclap violated the publicity or propaganda prohibition.

For purposes of the publicity or propaganda prohibition, we distinguish EPA's #DitchtheMyth campaign from Thunderclap. Despite the fact that the #DitchtheMyth campaign, like Thunderclap, was designed to permit people to post EPA's message from their own accounts, the facts are different. The graphics used in the #DitchtheMyth campaign contained the EPA logo, and the prewritten tweets contained the "#DitchtheMyth | @EPAWater" ascription at the end. We agree with EPA that including the @EPAWater Twitter handle at the end of the tweets identified EPA to the intended audience as the source of the information. Consequently, we conclude that EPA did not violate the prohibition in using appropriations to fund its #DitchtheMyth campaign.

2. EPA's #CleanWaterRules Campaign

The #CleanWaterRules campaign was designed to spread positive commentary on clean water and the WOTUS rule. EPA used the hashtag itself in numerous social media messages providing information and emphasizing the importance of the agency's new rule. EPA's #CleanWaterRules campaign raises a question about self-aggrandizement because certain posts described what EPA declared as benefits or positive changes that would come about, and attributed such benefits to the agency's new rule. Examples of such posts include:

- "Our new rule protects clean water and in turn protects everything that depends on it – including your neighborhood grocery store. #CleanWaterRules"
- "Our communities and our economy depend on clean water. That's why we're finalizing our Clean Water Rule. #CleanWaterRules"
- "Millions of acres of America's wetlands lacked clear protections – until our new #CleanWaterRules"
- "Some big news this morning: Our Clean Water Rule was just finalized. This rule will better protect upstream waters, ensuring cleaner water downstream. That's great news for people's health, the environment and our economy. . . . #CleanWaterRules"

Self-aggrandizement is defined as publicity of a nature tending to emphasize the importance of the agency or activity in question, noting that one of the prohibition's primary targets is communication with an obvious purpose of puffery. B-302504, Mar. 10, 2004. Balancing the restriction with an agency's right to disseminate information regarding its views and policies, we have traditionally afforded agencies wide discretion in their informational activities. *Id.*

We do not view EPA's use of the #CleanWaterRules hashtag as self-aggrandizing. The campaign and associated social media posts certainly emphasized the

significance of the agency's rule and the perceived benefits that would result from its implementation, but engendering praise for the agency was not the goal. We note that this situation concerns an agency's rulemaking and not an agency's backing of particular legislation—when EPA refers to “our rule,” the attribution is a factual statement rather than evidence of an attempt to laud or credit EPA for the stated benefits. See B-302504 (HHS cover letter touting the benefits of a new Medicare law with statements including “[a]s a result of a new law, Medicare is making some of the most significant improvements to the program since its inception” and an accompanying letter advising beneficiaries that “[t]his new law preserves and strengthens the current Medicare program” did not constitute self-aggrandizement, as HHS did not attribute the enactment of new benefits to HHS). See also B-319075, Apr. 23, 2010 (HHS's creation of the *HealthReform.gov* website and the *State Your Support* webpage dedicated to advocating the Administration's position on health-care reform during the pendency of the Patient Protection and Affordable Care Act did not constitute self-aggrandizement, as they were not designed to persuade the public of HHS's importance).

3. EPA's Informational Authorities

EPA points to authority in the National Environmental Education Act of 1990 (NEEA), 20 U.S.C. §§ 5501–5510, and section 206 of the E-Government Act of 2002, Public Law 107-347, as providing statutory authority to use the internet and other information technologies to educate the public and achieve the “widest possible dissemination of information,” and to create opportunities for public participation in Government. EPA Response, at 5–6 (internal quotation marks omitted).

The NEEA established an Office of Education within EPA, charged with disseminating educational and media material, and developing and supporting efforts to improve understanding of the natural environment, among other duties. 20 U.S.C. § 5501(a), (b). Section 206 of the E-Government Act contemplates enhanced public participation enabled by agency maintenance of a federal government website containing information consistent with the requirements of the Administrative Procedures Act and electronic docketing for its rulemakings. Pub. L. No. 107-347, § 206, 116 Stat. 2899, 2916 (Dec. 17, 2002). Clearly, these statutes evidence Congress' interest in EPA informing the public regarding its policies and views. These statutes, necessarily, should be construed in harmony with the publicity or propaganda prohibition, which Congress has imposed on EPA's use of its appropriation. In this regard, neither of these provisions provides EPA with specific authority to overcome the publicity or propaganda restriction on the use of appropriated funds. See B-302504.

B. Grassroots Lobbying

Section 715 of the Financial Services and General Government Appropriations Act, 2015, provides:

“No part of any funds appropriated in this or any other Act shall be used by an agency of the executive branch other than for normal and recognized executive-legislative relationships, for publicity or propaganda purposes, and for the preparation, distribution or use of any kit, pamphlet, booklet, publication, radio, television, or film presentation designed to support or defeat legislation pending before the Congress, except in presentation to the Congress itself.”

Pub. L. No. 113-235, div. E, § 715.¹⁹ The anti-lobbying provision prohibits indirect or “grassroots” lobbying in support of, or in opposition to, pending legislation. B-325248, Sept. 9, 2014. The provision is violated where there is evidence of a clear appeal by an agency to the public to contact Members of Congress in support of, or in opposition to, pending legislation. *Id.*; B-322882, Nov. 8, 2012. It is not required that the appeal specify a particular piece of legislation. B-192746-O.M., Mar. 7, 1979. Our interpretation of section 715 is derived from the statutory language as well as the legislative history of grassroots lobbying prohibitions and is consistent with a proper respect for an agency’s right to communicate with the public and Congress about its policies and activities. B-325248. *See also* B-304715, Apr. 27, 2005; B-270875, July 5, 1996; B-192658, Sept. 1, 1978. To violate the grassroots lobbying prohibition, there must be pending legislation and a clear appeal by an agency to the public to contact Members of Congress.

At issue here is whether EPA’s hyperlinks to external webpages containing link buttons to contact Members of Congress in support of the proposed rule constitute a clear appeal by EPA to the public to contact Members of Congress in support of or in opposition to pending legislation. Both of the external webpages contained link buttons to contact Congress in support of the proposed rule while several bills were pending that would prevent implementation of the rule. In this context, we view the appeals as urging contact in opposition to pending legislation. EPA associated itself with the linked content when it chose to hyperlink to those webpages within its official blog post. As explained below, we conclude that by hyperlinking to these

¹⁹ Additionally, section 401 of the Department of Interior, Environment, and Related Agencies Appropriations Act, 2015, states that “[n]o part of any appropriation contained in the Act shall be available for any activity that in any way tends to promote public support or opposition to any legislative proposal on which Congressional action is not complete other than to communicate to Members of Congress as described in 18 U.S.C. [§] 1913.” Pub. L. No. 113-235, div. F, § 401.

webpages, EPA appealed to the public to contact Congress in opposition to pending legislation in violation of the grassroots lobbying prohibition.

1. The External Webpages Contained Clear Appeals to the Public to Contact Members of Congress in Opposition to Pending Legislation

In the “Tell Us Why #CleanWaterRules” blog post, EPA’s Communications Director for its Office of Water explained how water affects two groups: surfers and beer brewers. EPA’s Communications Director explained that surfers are at risk for becoming sick from pollution, and that brewers rely on clean water. The EPA blogger included hyperlinks to the Surfrider Foundation blog post and the NRDC webpage supporting his statements.

a. Pending Legislation

Although specific legislation is not mentioned in either the EPA blog post or the hyperlinked webpages, since the March 2014 release of the proposed WOTUS rule for comment and continuing to the present, multiple bills have been introduced to prevent implementation of the rule. Such measures include:

- Protecting Water and Property Rights Act of 2014, S. 2496, 113th Cong. (2014) (introduced June 19, 2014)
- Waters of the United States Regulatory Overreach Protection Act of 2014, H.R. 5078, 113th Cong. (2014) (introduced July 11, 2014)
- Waters of the United States Regulatory Overreach Protection Act of 2015, H.R. 594, 114th Cong. (2015) (introduced January 28, 2015)
- American Energy Renaissance Act of 2015, S. 791, 114th Cong. (2015) (introduced March 18, 2015)
- American Energy Renaissance Act of 2015, H.R. 1487, 114th Cong. (2015) (introduced March 19, 2015)
- Regulatory Integrity Protection Act of 2015, H.R. 1732, 114th Cong. (2015) (introduced April 13, 2015)
- Defense of Environment and Property Act of 2015, S. 980, 114th Cong. (2015) (introduced April 16, 2015)
- Federal Water Quality Protection Act, S. 1140, 114th Cong. (2015) (introduced April 30, 2015)
- Defending Rivers for Overreaching Policies Act of 2015, S. 1178, 114th Cong. (2015) (introduced April 30, 2015)
- Don’t Ignore the Will of the American People Act, H.R. 2599, 114th Cong. (2015) (introduced June 1, 2015)
- Federal Regulatory Certainty for Water Act, H.R. 2705, 114th Cong. (2015) (introduced June 9, 2015)
- Department of Interior, Environment, and Related Agencies Appropriations Act, 2016, H.R. 2822, § 429, 114th Cong. (2015) (introduced June 18, 2015)

Of interest to us is legislation pending from April 7, 2015, the date of EPA's blog post, to the present. For example, the Waters of the United States Regulatory Overreach Protection Act of 2015, H.R. 594, was introduced in the House on January 28, 2015. If enacted, the provision would prevent implementation of the proposed rule. The Regulatory Integrity Protection Act of 2015, H.R. 1732, was one of several measures introduced in April 2015 that would require withdrawal of the proposed rule. On June 18, 2015, section 422, was proposed for inclusion in the Department of Interior, Environment, and Related Agencies Appropriations Act, 2016.²⁰ The provision would prohibit the use of EPA's appropriation in connection with the WOTUS rule.

A Member of Congress contacted through the NRDC and Surfrider Foundation action forms could fairly perceive the contact as encouragement to vote against pending legislation that would prevent implementation of the rule—which, during the time of the EPA blog post, would include these and other measures. During a Maritime Administration advertising campaign encouraging the public to contact Congress in support of a strong merchant marine, legislation was pending that would directly impact the strength of the merchant marine. B-192746-O.M. We concluded that one could reasonably infer that the ad campaign was directed toward supporting the legislation. *Id.* A congressman receiving mail from constituents supporting a strong merchant marine could reasonably consider such comments as favoring the pending legislation. *Id.* Cf. B-322882, Nov. 8, 2012 (U.S. Consumer Product Safety Commission email encouraging individual to contact Congress regarding an interpretive rule did not violate prohibition as the appeal did not mention pending legislation, *and* there was no relevant legislation concerning the rule pending at the time).

b. Clear Appeal

In addition to providing support for EPA's assertion that brewers rely on clean water, the NRDC Brewers for Clean Water page espoused a strong message of support for Clean Water Act safeguards, along with a clear suggestion that the public get involved to encourage strong legal protections. As seen in Figure 4, the orange link button leading to the action page ("Add your voice and help make great beer") is prominently displayed, as is the lead-in solicitation, which states in part:

"Our water supplies depend on responsible regulations that fight pollution and protect drinking water at its source by keeping small streams and wetlands healthy.

"Water Needs Us

²⁰ H.R. 2822, § 422, 114th Cong. (2015).

"Now our streams, wetlands, and water supply need our help. Without strong legal protections, they are under threat from pollution like sewage, agricultural waste and oil spills.

"You can help defend clean water and great beer by taking action today."

The action element is thus visually and substantively incorporated in the NRDC Brewers for Clean Water page that is directly hyperlinked in the EPA blog, and clicking the link button leads to the webpage allowing readers to transmit a message to their senators. Specifically, after noting that "polluters and their allies in Congress could try to block" the rule from moving forward, the prompt explicitly urges readers to contact their senators to ask them to support agency efforts to finalize the proposed rule. See Brewers Alliance Page (click link button). The NRDC page makes a clear appeal to the public to contact Members of Congress.

Similarly, the Surfrider Foundation webpage contains a clear appeal to the public to contact Members of Congress. As seen in Figure 3, the prompt associated with the "Get Involved" link button stated on its face, "Defend the Clean Water Act, Tell Congress to stop interfering with your right to clean water!" Clicking the button led to an action page including a form to contact Congress to encourage opposition of legislation or amendments in appropriations bills that would undermine the CWA or WOTUS rule.

We distinguish our conclusion here from our opinion concluding that HHS did not engage in grassroots lobbying when it created a *State Your Support* webpage, allowing users to electronically sign a form letter to the President supporting the Administration's position on health care reform while the Patient Protection and Affordable Care Act was pending. B-319075. Messages to the President do not implicate the grassroots lobbying prohibition. The letter included an affirmation of "commitment to work with Congress to enact legislation this year which provides affordable, high quality coverage for all Americans." *Id.* However, the letter actually contained no direct appeal to contact Congress, and we did not find a violation. B-319075. See also B-304715, Apr. 27, 2005.

Unlike the *State Your Support* webpage, both the NRDC and Surfrider Foundation webpages made clear appeals to the public to contact Congress in support of the proposed rule. Specifically, the webpages contained clear appeals to the public to contact Members of Congress in support of EPA's efforts to finalize the WOTUS rule and in opposition to measures that would undermine the rule, while several bills that would explicitly prevent implementation of the rule were pending. The appeals urge the public to contact Congress in opposition to pending legislation. See B-192746. We next analyze whether EPA's association with the webpages through its hyperlinks constitutes grassroots lobbying.

2. EPA Associated with the Appeals by Hyperlinking to the Webpages

Hyperlinks facilitate the transmission of information and ideas across the internet. The ease and innovation of the internet, however, do not obviate established restrictions on the use of appropriations. By its nature, including a hyperlink invites readers to visit the website to which the hyperlink connects. In fact, EPA conceded that it intended to direct readers to the linked articles, which supported statements made in its blog post. EPA Response, at 15. We cannot view the articles in a vacuum. We must assess their visible content and overall message as part of the message conveyed by EPA in connecting to the linked webpages. While EPA's literal message (as stated in the sentences containing the hyperlinks) concerned the impact of clean water on surfers and brewers, and the hyperlinked webpages both contained information affirming EPA's statements, the context here is important.

EPA published its "Tell Us Why #CleanWaterRules" blog post on April 7, 2015, after submitting the final rule to OMB on the previous day.²¹ Fed. Reg. Advisor. At a critical time in the rulemaking process, the blog post announced EPA's #CleanWaterRules campaign. By asking the public to post photos proclaiming reasons that clean water rules using a hashtag, EPA created an opportunity to elevate support for its rule. EPA Blog Post. With knowledge of significant, continued congressional opposition to the rule²² (including measures pending at or near the time of the blog post's publication), the agency used this forum to link to a campaign page belonging to NRDC, an environmental action group, describing an alliance of brewers and their advocacy for strong legal protections for streams and wetlands under the Clean Water Act. This webpage connected to a form letter specifically seeking congressional support for the finalization of EPA's clean water rule. EPA also used its blog post to link to an article in a blog belonging to a grassroots environmental organization that utilizes a "powerful activist network" to protect oceans, waves and beaches (Surfrider Foundation)—a blog which displayed a visible "Take Action" column for lobbying alongside the article.

²¹ Pursuant to an Executive Order, OMB, through its Office of Information and Regulatory Affairs (OIRA), provides oversight of agency regulatory actions. For significant regulatory actions, OIRA may return a final rule to the agency for additional consideration or delay the publication or issuance of the rule to the public. Exec. Order No. 12866, *Regulatory Planning and Review*, 58 Fed. Reg. 190 (Oct. 4, 1993).

²² Following introduction of the proposed rule, 231 members of the House submitted a letter requesting that EPA withdraw the proposal, citing "serious concerns." Members sent another letter of concern to EPA regarding the WOTUS rule in October 2014.

Our consideration in applying the grassroots lobbying restriction is not confined to the message conveyed on the date EPA published its blog post. We recognize that websites are dynamic. While the content of some remains static, the content of others may change frequently. And a webpage, as it exists in one moment, may be viewed and may convey a message beyond that moment—a message that, as conditions change, may evolve from what was previously communicated. EPA published its blog post on April 7, 2015, but a reader could visit the blog and link to the NRDC and Surfrider Foundation webpages beyond that date, if EPA continued to facilitate access. A clear appeal to contact Congress regarding pending legislation, whether it occurred on April 7, 2015, or in the months that followed, implicates the grassroots lobbying prohibition. For example, several bills were introduced after EPA published its blog post. As previously noted, a senator contacted through the NRDC or Surfrider Foundation action pages could reasonably perceive an appeal to support EPA's efforts to finalize the rule as suggesting opposition to those bills.

NRDC launched its Brewers for Clean Water initiative on April 9, 2013, almost two years prior to the EPA blog post, and one year before the release of the proposed rule. NRDC, *Great Beer Needs Clean Water: NRDC Partners with Craft Brewers to Protect the Clean Water Act*, Apr. 9, 2013, available at www.nrdc.org/media/2013/130409.asp (last visited Dec. 7, 2015); Founders Brewing Co., *In Support of Brewers for Clean Water*, Apr. 9, 2013, available at <http://foundersbrewing.com/latest-news/2013/in-support-of-brewers-for-clean-water/> (last visited Dec. 7, 2015) (“The Natural Resources Defense Council (NRDC) announced their Brewers for Clean Water initiative today.”). But the grassroots lobbying prohibition is concerned with the message EPA conveyed apart from what NRDC may have contemplated in 2013. While we cannot know every change to the NRDC page made between the time of its launch and EPA's hyperlink, we do know that EPA affirmatively included the NRDC hyperlink in its communication, the language in the hyperlinked webpage encourages support of regulations fitting the description of the WOTUS rule, and the webpage displays an orange link button, leading to a webpage that notes congressional opposition and seeks support for EPA's efforts to finalize the “proposed Clean Water Protection Rule.”

Similarly, the Surfrider Foundation blog post was created on July 30, 2010, years before the EPA blog post. Surfrider Blog Post. The link button is part of the “Take Action” section of the webpage, which serves as a sidebar of the blog, and does not connect specifically to any particular article.²³ The text of the action prompts have

²³ At the time we began drafting this opinion, the “Take Action” section appeared on other pages of the Surfrider Foundation blog and alongside various blog posts. The section was a highly visible aspect of the webpage to which EPA's blog hyperlinked. The Surfrider Foundation blog site has since been redesigned and no longer features a “Take Action” section alongside the blog post.

changed during the time we have developed this opinion. Indeed, as EPA has argued, we cannot be certain an action prompt regarding EPA's proposed rule even existed at the time of the agency's blog post. EPA Response, at 15. Still, the Surfrider Foundation page has at various points contained action prompts encouraging readers to contact Congress in opposition to appropriations riders and legislation that would undermine the CWA or WOTUS rule, at a time when such measures were pending. EPA is responsible for the message it continues to endorse, rather than just the message as it may have existed at a single point in time.

The fact that the linked content was not EPA's does not excuse the agency from responsibility for its own message. Here, EPA conveyed a message through the expressive act of facilitating access to the NRDC and Surfrider Foundation webpages, especially during an atmosphere of ongoing public debate over the rule. This concept that including a hyperlink forms an expressive act and conveys a message that is informed by the linked content finds support in a line of court cases under the government speech doctrine. The Supreme Court and several federal circuit courts have, in other contexts, recognized that the government's decision to include third-party speech within its own communication channels is an expressive act in and of itself that conveys a message. *Pleasant Grove City, Utah v. Summum*, 555 U.S. 460, 473, 476 (2009) (emphasizing city's control over selection of monuments as evidence of its control over its message); *Sutcliffe v. Epping School Dist.*, 584 F.3d 314, 331-33 (1st Cir. 2009) (choice of external websites to hyperlink using town website conveyed a message independent of the message within the third-party speech).²⁴

For example a school district used its website to urge opposition of a bill pending in the state legislature, including by linking to the "interactive" websites of two organizations opposing the bill. *Page v. Lexington County School Dist. One*, 531 F.3d 275, 278 (4th Cir. 2008). In rejecting the argument that the school district could not control its message because it could not control the content of the linked websites, the Fourth Circuit reasoned that the school district had provided information that other websites supporting its position existed and had facilitated viewing those sites, rather than incorporating all possible content displayed on the linked websites. *Id.* at 284. Significantly, the court noted that the selection of hyperlinks by the school district and its ability to remove them at any time evidenced control over the message and demonstrated that the hyperlinked websites were chosen, insofar as they could, to "buttress" the position the school district sought to convey. *Id.* at 284-85. In the present case, while EPA also did not directly

²⁴ Here we do not apply the case law for purposes of discerning constitutional violations, but use it as a reference to inform our analysis of EPA's message, as conveyed by its decision to hyperlink to the NRDC and Surfrider Foundation webpages.

incorporate the contents of the NRDC and Surfrider Foundation webpages, similar to *Page*, the decision to hyperlink to third-party websites using its official blog reflects an effort to facilitate the viewing of websites that were representative of EPA's own message or position.

Both webpages contained clear appeals to the public to contact Congress at a time when legislation to prevent implementation of the WOTUS rule was pending. When EPA hyperlinked to the NRDC and Surfrider Foundation webpages using an official communication channel belonging to EPA and visually encouraged its readers to visit these external websites, EPA associated itself with the messages conveyed by these self-described action groups.²⁵ It is this association combined with the clear appeals actually contained in the webpages that form the prohibited conduct.

EPA's choice of hyperlinks formed its own expressive act for which the agency is responsible. EPA sought to direct readers to the NRDC and Surfrider Foundation articles in support of statements made in its blog post. It cannot then disclaim association with the overall message the reader reaches when clicking those hyperlinks. While EPA cannot control external websites, it can certainly control its own. We conclude that EPA violated the anti-lobbying provisions contained in appropriations acts for FY 2015 when it obligated and expended funds in connection with establishing the hyperlinks to the webpages of environmental action groups.

3. EPA's Position

EPA argues that its campaign did not include any appeals to contact Congress regarding pending legislation. See EPA Response, at 12–13. But this argument necessarily turns on acceptance of the agency's view that it has no responsibility for linked content—an argument that we reject. See *id.*, at 14–15.

Acknowledging that websites are dynamic and content can change daily or hourly, EPA poses that it would be “a sweeping and unwarranted interpretation of the law to hold agencies' responsible for knowing every change made to someone else's webpage over time.” *Id.*, at 15. But EPA overlooks the important element of control,

²⁵ In *Summum* the Supreme Court noted that “[i]t certainly is not common for property owners to open up their property for the installation of permanent monuments that convey a message with which they do not wish to be associated. . . . [P]ersons who observe donated monuments routinely—and reasonably—interpret them as conveying some message on the property owner's behalf.” 555 U.S. at 471. Cf. *Walker v. Texas Div., Sons of Confederate Veterans, Inc.*, 135 S. Ct. 2239, 2251 (2015) (where Texas exercised final approval authority over specialty license plates bearing Texas's name and displaying a message created by a third party, Texas “explicitly associate[d] itself with the speech on its plates”).

which the Supreme Court recognized. See *Summum*, 555 U.S. at 473. We do not suggest that an agency is responsible for knowing every change an external organization makes to its website—but that an agency is responsible for its own message, which is the message it controls. See *Page*, 531 F.3d at 282, 285. See also *Sutcliffe*, 584 F.3d at 330–31.

It was EPA's decision to link to external websites belonging to environmental action groups to support statements made in its blog. In doing so, EPA associated itself with the content reached by clicking those hyperlinks. We are not speaking about "every link that a reader could get to from [the linked article]," as EPA suggests that we are, for those are not the facts before us. See EPA Response, at 15. Here we assess a website whose action prompt was integrated into the overall message and content of the hyperlinked webpage, with a large orange button leading to the direct appeal to contact senators; and a website whose action prompt was a visible element of the hyperlinked webpage itself, containing the appeal to contact Congress on its face.

EPA told us that it included the hyperlinks to explain why clean water is important to surfers and to demonstrate that brewers need clean water. *Id.*, at 14–15. The agency also noted, and we agree, that it is unclear when certain elements of the linked webpages emerged. *Id.*, at 15. But in discerning the message that EPA conveyed it is necessary to consider the visible content and overall message to which EPA's hyperlinks facilitated access.²⁶ Here, a reader of The EPA Blog viewing the hyperlinked articles could reasonably interpret the linked content as messaging endorsed by EPA.²⁷ We do not suggest that every hyperlink must constitute an endorsement of the linked webpage. But these facts—the continued

²⁶ In *Summum*, the Supreme Court emphasized that the government's display of a monument is perceived by the public to convey a government message. 555 U.S. at 470–72. Similarly, in *Walker* the Court noted that license plates are closely identified with government speech in the public mind. 135 S. Ct. at 2248–49 ("Indeed, a person who displays a message on a Texas license plate likely intends to convey to the public that the State has endorsed that message."). In both instances, the Court reasoned that the public could reasonably interpret the third-party speech in question as conveying a message of the government. See *id.*; *Summum*, 555 U.S. at 471.

²⁷ EPA's social media policy indicates that the agency has acknowledged this much, as the policy suggests inclusion of an exit message when connecting to third party content. EPA, *Using Social Media to Communicate with the Public* (July 7, 2005), available at www2.epa.gov/sites/production/files/2013-11/documents/comm_public.pdf (last visited Dec. 7, 2015). Such procedures were not applied in this situation.

debate surrounding the rulemaking, the inclusion of the hyperlinks to websites of environmental action groups within a blog post announcing a campaign designed to recruit public voices to indirectly support finalization of the rule, and the pendency of legislation that would directly prevent the rule from moving forward—preclude a good faith characterization of these hyperlinks as mere citations.

CONCLUSION

The use of appropriated funds associated with implementing EPA's Thunderclap campaign and establishing hyperlinks to the NRDC and Surfrider Foundation webpages violated prohibitions against publicity or propaganda and grassroots lobbying contained in appropriations acts for FYs 2014 and 2015. Because EPA obligated and expended appropriated funds in violation of specific prohibitions, we also conclude that EPA violated the Antideficiency Act, 31 U.S.C. § 1341(a)(1)(A), as the agency's appropriations were not available for these prohibited purposes. Accordingly, EPA should report the violation to the President and Congress, with a copy to the Comptroller General, as required by the Antideficiency Act.²⁸ The agency should determine the cost associated with the prohibited conduct and include the amount in its report of its Antideficiency Act violation.

If you have any questions, please contact Edda Emmanuelli Perez, Managing Associate General Counsel, at (202) 512-2853, or Julia C. Matta, Assistant General Counsel, at (202) 512-4023.

Sincerely,



Susan A. Poling
General Counsel

²⁸ 31 U.S.C. § 1351. The Office of Management and Budget has published requirements for executive agencies for reporting violations. OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, §§ 145, 145.8, available at www.whitehouse.gov/omb/circulars/a11_current_year/a11_toc (last visited Dec. 7, 2015).

Family Energy Expenditures (2016)

"Energy Cost Impacts on American Families" provides information about energy expenditures (gasoline, electricity, and natural gas) by families at five different income levels (quintiles). The report is updated annually by Gene Trisko who relies on data from the U.S. Bureau of Labor Statistics, the U.S. Census Bureau, and the U.S. Energy Information Administration. Below are some of the key findings of the 2016 report:

- ❖ 40% of America's families — 51 million households — live on an average after-tax income of \$1,643 per month, or slightly less than \$55 per day. These families spend an average of 17% of their income on energy.
- ❖ The poorest of these — some 25 million families — spend 22 cents of every dollar they take home on energy.
- ❖ Compared to the other basic necessities (food, clothing, gasoline, health care, and housing), increases in electricity costs have the most regressive impact on low-income households.
- ❖ Since 2005, national average electricity prices have increased by 33% in current dollars and by 7% in constant 2005 dollars. A portion of this increase is due to compliance costs associated with new Clean Air Act and other environmental regulations.

A full copy of the report is available at americaspower.org.

VISUALIZING REGULATIONS USING
REGDATA

About

The nearly continuous growth of federal regulations can have a lasting effect on businesses, the economy, and your everyday life. But how can we make sense of the over 175,000 pages and 1 million restrictions in the Code of Federal Regulations?

As they say, a picture is worth a thousand words, and RegData—created by Mercatus senior research fellow Patrick McLaughlin and Omar Al-Ubaydli, and further developed by Oliver Sherouse—can help you see trends in regulation based on industry, regulatory agency or public law.

RegData introduces an objective, replicable, and transparent methodology for measuring regulation.

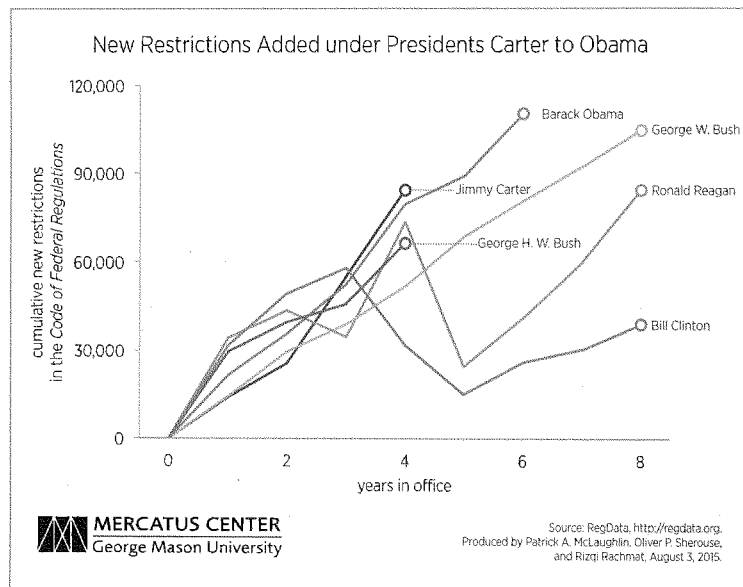
RegData improves on existing measures of regulation in two principal ways:

1. RegData quantifies regulations based on the actual content of regulatory text. In other words, our custom-made program examines the regulatory text itself, counting the number of binding constraints or "restrictions," words that indicate an obligation to comply such as "shall" or "must." This is important because some regulatory programs can be hundreds of pages long with relatively few restrictions, while others only have a few paragraphs with a relatively high number of restrictions.
2. RegData quantifies regulation by industry. We assess the probability that a given regulatory restriction is targeting a specific industry, and this allows us to create industry-specific measures of regulation over time. RegData uses the same industry classes as the North American Industrial Classification System (NAICS), which categorizes and describes each industry in the US economy. Using industry-specific quantifications of regulation, users can examine the growth of regulation relevant to a particular industry over time or compare growth rates across industries.

With the newly updated RegData.org, you can view our full chart gallery and better visualize how federal regulations have changed over time. With the interactive tool, you can also build your own visuals and download the data to learn more.

In this booklet, we include examples of how RegData can tell the story of the growth and impact of federal regulations in the United States.

The Accumulation of Regulatory Restrictions across Presidential Administrations

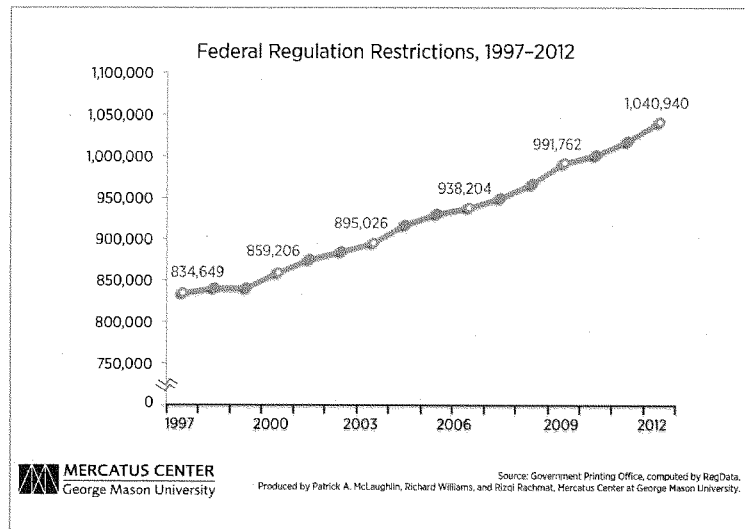


Presidents set regulatory priorities, appoint and direct agency leadership, and determine how and when to review proposed or existing rules for cost-efficiency and consistency. These decisions materially affect the pace of regulatory accumulation during a president's time in office, which in turn affects the cost and complexity of doing business in the United States.

This chart shows the accumulation of regulation during all administrations since President Carter's through 2014. A picture emerges of a 40-year bipartisan trend of regulatory accumulation, with the last two presidents adding the most regulatory restrictions.

Source: <http://regdata.org/the-accumulation-of-regulatory-restrictions-across-presidential-administrations/>

Why We Need Regulatory Reform

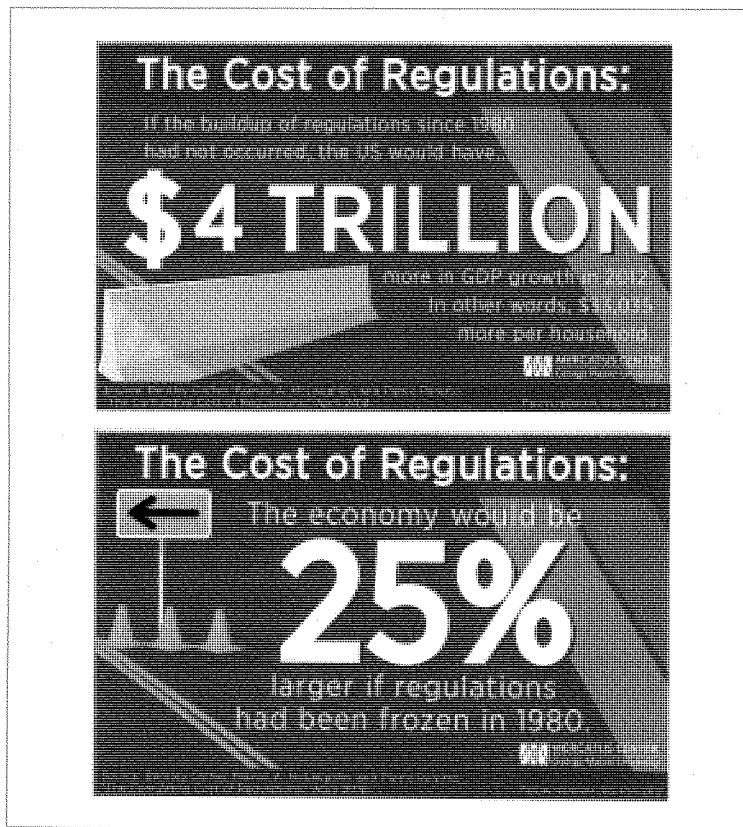


The American regulatory system has no working, systematic process for reviewing regulations for obsolescence or poor performance, facilitating the accumulation of a vast stock of regulations. The total number of restrictions in federal regulations has grown from about 835,000 in 1997 to over 1 million by 2010. Over time, these accumulated restrictions can either directly foreclose paths to innovation or entrepreneurship or add up to the point where their cumulative cost makes certain actions prohibitively expensive.

Every attempt by presidents to direct agencies to review their own regulations in order to eliminate nonfunctional ones has yielded poor results. This and other obstacles must be overcome before retrospective review and elimination or modification of nonfunctional regulations can be accomplished in the United States.

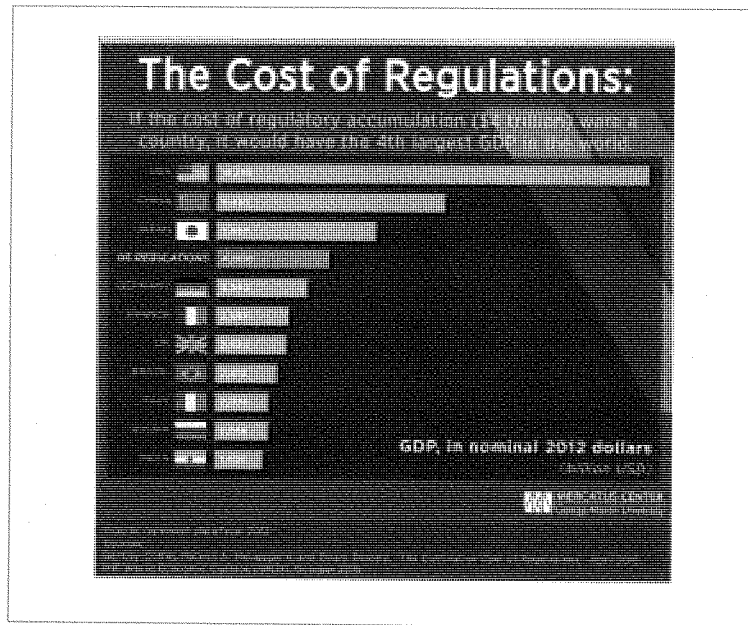
Source: <http://regdata.org/why-we-need-regulatory-reform-in-two-charts/>

The Cumulative Cost of Regulations



Source: <http://mercatus.org/publication/cumulative-cost-regulations>

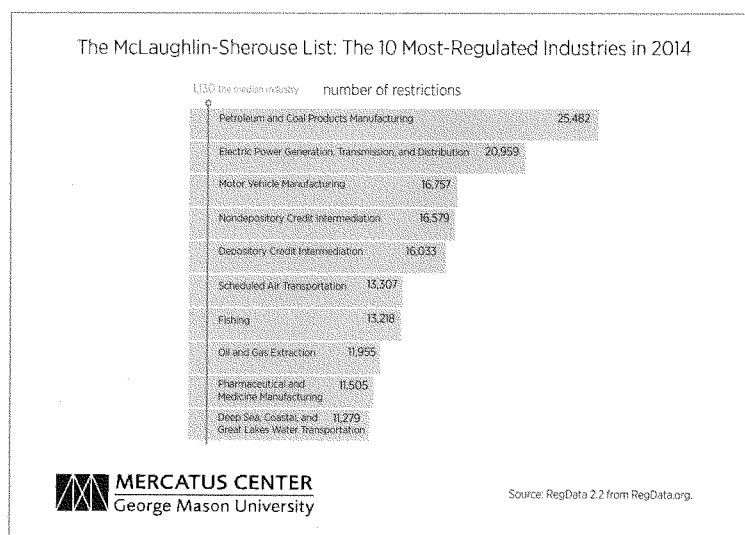
What If the Regulatory Burden Were Its Own Country?



On net, regulations slow the growth of the entire economy by an average of 0.8 percent per annum. Because economic growth is an exponential process, this seemingly small figure grows powerfully over time into a truly dramatic difference in the level of GDP per capita. Had regulations been held constant at levels observed in 1980, our model predicts that the economy would be nearly 25% percent larger. In other words, regulation since 1980 reduced the size of the economy by roughly \$4 trillion (or nearly \$13k/person) in 2012.

Source: <http://mercatus.org/publication/cumulative-cost-regulations>

Top 10 Most Regulated Industries

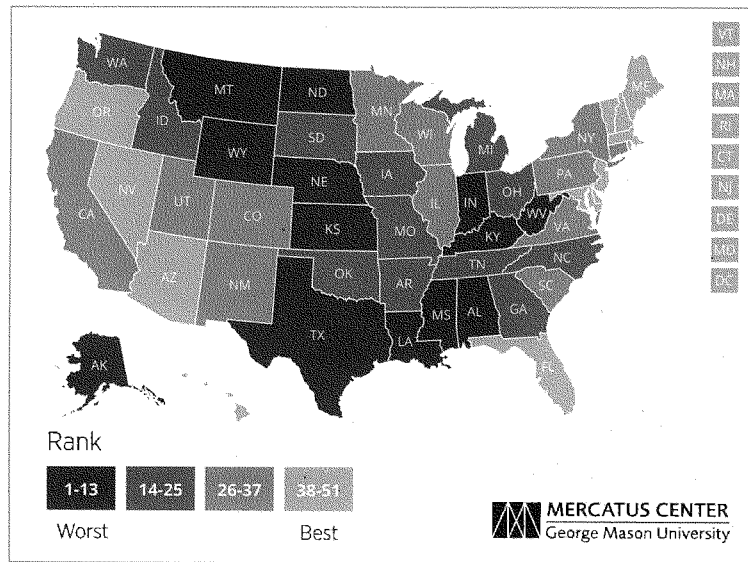


Federal regulations can, by design, target some industries more than others. This table shows the top 10 most regulated industries for 2014, as classified by the four-digit North American Industry Classification System (NAICS). The top two most targeted industries in 2014 were energy-related (the petroleum and coal products manufacturing and electric power generation, transmission, and distribution).

Three types of manufacturing made the top 10 (petroleum and coal products manufacturing, motor vehicle manufacturing, and pharmaceutical and medicine manufacturing); two types of financial services industries (nondepository credit intermediation and depository credit intermediation); two modes of transportation (scheduled air transportation and deep sea, coastal, and Great Lakes water transportation); and two industries involving natural resources (fishing and oil and gas extraction).

Source: <http://regdata.org/mclaughlin-sherouse-list-10-regulated-industries-2014/>

The Impact of Federal Regulation on the 50 States



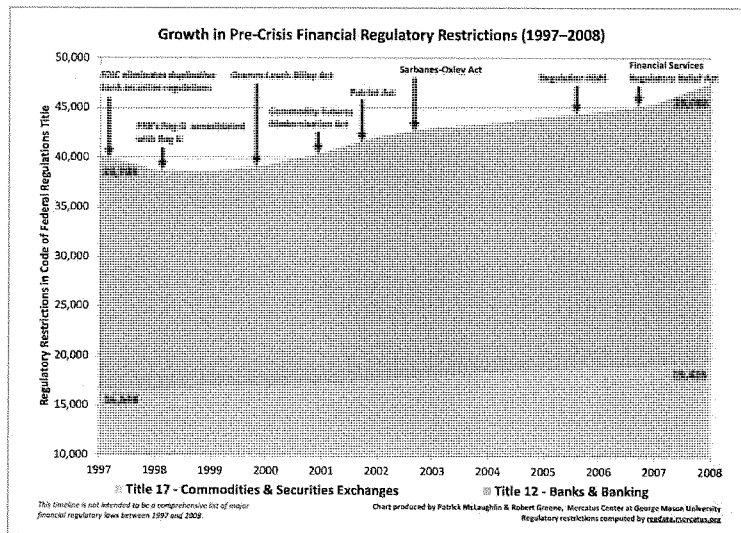
The FRASE index (federal regulation and state enterprise index) ranks the 50 states and the District of Columbia according to how federal regulations affect each state's economy. Over the past 80 years, the federal government has increasingly relied on regulations as its primary legal output. Although federal regulation applies in the same way in all states, each state's economy includes a unique mix of industries. As a result, federal policies that target specific sectors of the economy will affect states in different ways.

Top Five: Louisiana, Alaska, Wyoming, Indiana, Kentucky

Bottom Five: New Hampshire, District of Columbia, Rhode Island, Massachusetts, Vermont

Source: <http://regdata.org/50states/>

Did Deregulation Cause the Financial Crisis? Examining a Common Justification for Dodd-Frank

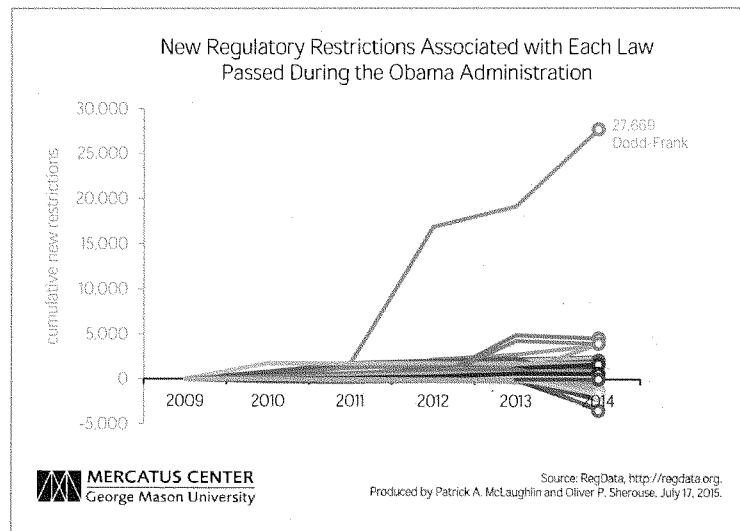


The Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law about two years after the financial crisis of 2008. Deregulation of the financial services sector in the years leading up to the 2008 crisis was—and still is—used to justify Dodd-Frank's substantial regulatory burdens. But financial regulation did not decrease in the decade leading up to the financial crisis—it increased.

Using RegData, we find that between 1997 and 2008 the number of financial regulatory restrictions in the *Code of Federal Regulations (CFR)* rose from approximately 40,286 restrictions to 47,494—an increase of 17.9 percent. Regulatory restrictions in Title 12 of the *CFR*—which regulates banking—increased by 18.2 percent while the number of restrictions in Title 17—which regulates commodity futures and securities markets—increased by 17.4 percent.

Source: <http://regdata.org/did-deregulation-cause-the-financial-crisis-examining-a-common-justification-for-dodd-frank/>

The Dodd-Frank Wall Street Reform and Consumer Protection Act May Be the Biggest Law Ever

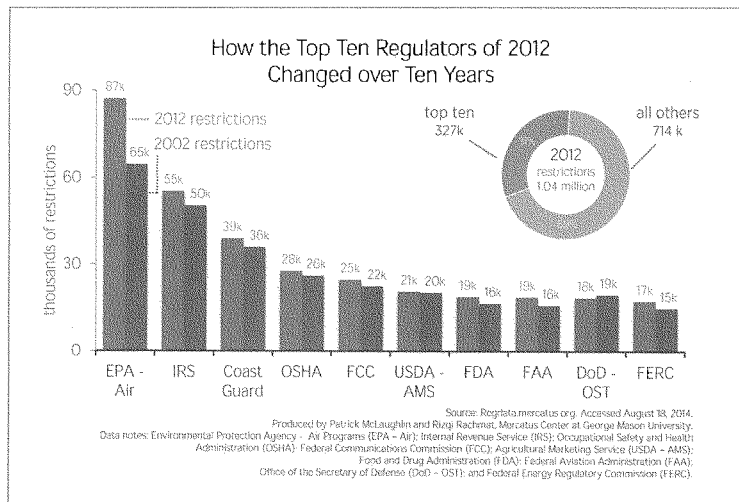


On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law as a response to the financial crisis of 2007–08. The statute, which itself was 848 pages long, directed dozens of regulatory agencies to revise or create new regulations addressing the financial system in the United States.

Those agencies responded with hundreds of new rules that will govern financial markets, on a scale that vastly exceeds any previous regulation of financial markets, and dwarfs the regulations that accompanied all other legislation enacted during the Obama administration. It is associated with more than five times as many new restrictions as any other law passed since January 2009, for a total of nearly 28,000 new restrictions.

Source: <http://regdata.org/the-dodd-frank-wall-street-reform-and-consumer-protection-act-may-be-the-biggest-law-ever/>

How the Top 10 Regulators of 2012 Changed over 10 Years

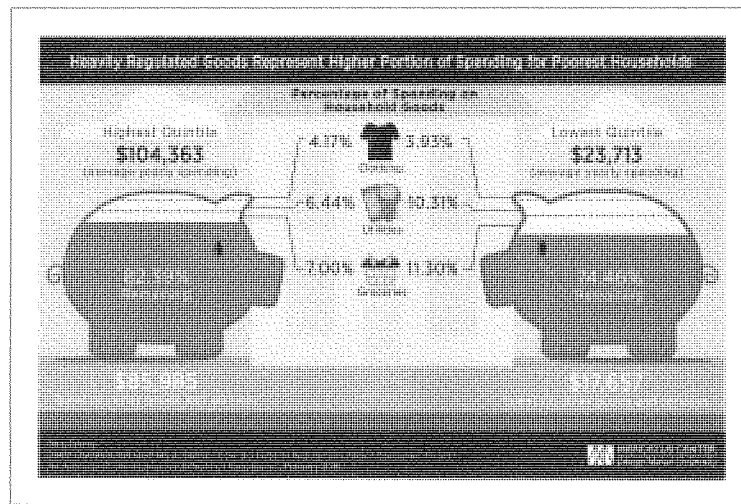


This chart uses statistics pulled from RegData to compare the federal regulators that published the most restrictions in the year 2012 with the number of restrictions these regulators published 10 years earlier in 2002.

The top 10 regulators accounted for almost one-third of all restrictions published in 2012, with the EPA and IRS producing the most restrictions.

Source: <http://regdata.org/how-the-top-ten-regulators-of-2012-changed-over-ten-years/>

How Do Federal Regulations Affect Consumer Prices? An Analysis of the Regressive Effects of Regulation

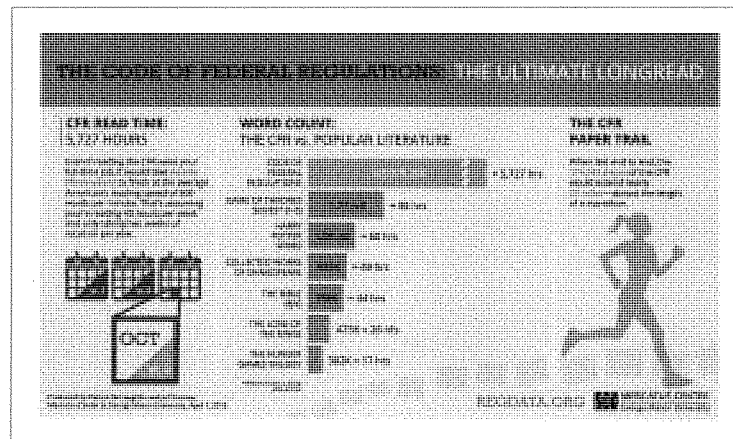


When the federal government introduces new regulations for an industry, there are numerous potential consequences for both producers and consumers. Often, complying with regulations is costly for firms, and these higher costs may in turn drive up prices for consumers.

A study for the Mercatus Center at George Mason University finds that price increases caused by regulation have a disproportionate negative effect on low-income households. The poorest households tend to spend a larger proportion of their income on goods that are heavily regulated and subject to both high and volatile prices. This cost should be recognized in policymakers' efforts to consider the costs and benefits of new and existing regulations.

Source: <http://mercatus.org/publication/how-do-federal-regulations-affect-consumer-prices-analysis-regressive-effects-regulation>

The Code of Federal Regulations: The Ultimate Longread



RegData was created to help us understand the size and scope of federal regulation and to enable researchers to learn more about the causes and consequences of regulatory accumulation. But why did we build computer programs to parse federal regulatory code, instead of reading it ourselves? Because it would have been impossible to read the entire *Code of Federal Regulations* and make any sense of it. Regulations have piled up to the point where no individual can make sense of them all.

The average adult reads prose text at a rate of 250 to 300 words per minute. If you read the *Code of Federal Regulations* at 300 words per minute on a full-time basis, it would take you nearly three years to get through just the version of the *CFR* published in 2012.

That's about 58 times as long as it would take to read through the five volumes currently published in George R. R. Martin's fantasy saga, *A Song of Ice and Fire*. Or 220 times as long as it would take to read through *The Lord of the Rings* from the original R. R. of fantasy—J. R. R. Tolkien.

Source: <http://regdata.org/the-code-of-federal-regulations-the-ultimate-longread/>

From: [REDACTED]
 Sent: Saturday, March 14, 2015 1:46 PM
 To: LE CUREUX Frank
 Subject: RE: DZN and GLY: section 6 from sub-group 4

Hi Frank,

Thanks for the photos. I hope we can meet up again.

All the best,
 Matt R.

From: LE CUREUX Frank <Frank.LECUREUX@echa.europa.eu>
 Sent: Friday, March 13, 2015 2:16 AM
 To: Ross, Matthew; Kathryn Guyton; Matt Martin; Lauren Zeise; Rusyn, Ivan
 Subject: RE: DZN and GLY: section 6 from sub-group 4

Dear all,

First, may I repeat that it was a real pleasure to meet and work with you for JARC monograph vol 112. I think we made quite a nice team - Thanks ☺

Thanks also for the nice moments we shared during the (little) free time we had in Lyon. As promised, here are two photos taken at Ivan's place on Monday evening. The quality of the photos is not so good but I believe the nice atmosphere of the evening clearly shines through the photos ... [please forward the photos to Andy, as I don't have his e-mail address]

Greetings from a sunny but chilly (0 deg celsius) Helsinki,
 Take care
 Frank

Frank Le Cureux
 Evaluation - E3
 European Chemicals Agency
 Annankatu 18, P.O. Box 400, FI-00121 Helsinki, Finland
 Tel. +358 9 6861 8505
 frank.lecureux@echa.europa.eu
<http://echa.europa.eu>

The above represents the opinion of the author and is not an official position of the European Chemicals Agency. This email, including any files attached to it, is intended for the use of the individual to whom it is addressed. If you have received this message in error, please notify the author as soon as possible and delete the message.

To: Ross, Matthew; Kathryn Guyton; Matt Martin; Lauren Zeise; Rusyn, Ivan
 Subject: RE: DZN and GLY: section 6 from sub-group 4
 Date: March 13, 2015

From: Kathryn Guyton
 Sent: Friday, March 27, 2015 1:50 PM
 To: Kurt Straif; lin.msc@icr.com; h.luomisa@uic.edu; egeghy.peter@epa.gov; terezade@gmail.com;
 lin.msc@icr.com; terezade@gmail.com; terezade@gmail.com; terezade@gmail.com;
 a.munich@nrc.ca; G.MC24@sunbelt.edu; jeholmes@nrc.ca; martin.matt@epa.gov; sporter@nrc.ca;
 seng@uallberta.ca; frank.leu@uic.edu; h.luomisa@uic.edu; martin.matt@epa.gov; sporter@nrc.ca;
 mross@uic.edu; terezade@gmail.com; terezade@gmail.com; terezade@gmail.com;
 Cc: Nicole Gaudin; Kurt Straif; Dana Luomis
 Subject: IARC Monographs, Vol 112

Dear all,

We thank you again for all of you important contributions to the volume 112 Working Group! In the week since the online publication of the Lancet Oncology summary, several of you have raised important questions and issues that we address below. Don't hesitate with any additional questions or comments.

My very best to you all,
 Kate

Kate Z. Guyton PhD DABT

Responsible Officer, Volume 112

1

Monographs Section

International Agency for Research on Cancer
 150, cours Albert Thomas
 69372 Lyon Cedex 08

France

Tel: (+33) (0)4 72 73 86 54

GuytonK@iarc.fr

1. Are the volume 112 evaluations "final"?

Yes! You'll find all volume 112 evaluations now included in the list of IARC monograph classifications: <http://monographs.iarc.fr/ENG/Classification/index.php>

2. Has Monsanto written a letter to WHO regarding the glyphosate 2A evaluation?

Yes. Monsanto has written to Madame Margaret Chan, Director-General. WHO will respond in writing to Monsanto.

3. Must I talk to the media regarding the evaluation?

No. Aaron Blair (thank you!) has been the primary WG point of contact for the media. This does not prevent you from responding to media requests if you wish, but don't hesitate to direct them to AARC or Aaron (sorry Aaron!). We ask, as

From: Kathryn Guyton
 To: martin.matt@epa.gov; egeghy.peter@epa.gov
 Date: March 27, 2015
 Subject: IARC Monographs, Vol 112

Talking points on IARC review of glyphosate.

CANCER ASSESSMENT DOCUMENT EVALUATION OF THE CARCINOGENIC POTENTIAL OF Glyphosate FINAL REPORT October 1, 2015	CANCER ASSESSMENT REVIEW COMMITTEE HEALTH EFFECTS DIVISION OFFICE OF PESTICIDE PROGRAMS U.S. Environmental Protection Agency
---	--

Page 2 of 87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460 OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION	
	
MEMORANDUM	
DATE: October 1, 2015	
SUBJECT: GLYPHOSATE: Report of the Cancer Assessment Review Committee	
PC Code: 417300 Decision No.: N/A Petition No.: N/A Risk Assessment Type: NA TXR No.: 0037299 MRID No.: N/A	DP Barcode: N/A Registration No.: N/A Regulatory Action: N/A Case No.: N/A CAS No.: 1071-83-6 40 CFR: N/A
FROM: Jess Rowland, <i>Jess Rowland</i> Deputy Division Director Chair, Cancer Assessment Review Committee And Karyn Middleton, Co-Chair Cancer Assessment Review Committee Health Effects Division (7509P)	
TO: Charles Smith, Chief Risk Assessment Branch 1 Health Effects Division (7509P) And Khue Nguyen Chemical Review Manager Risk Management and Implementation Branch 1 Pesticide Re-evaluation Division	
On September 16, 2015, the Cancer Assessment Review Committee (CARC) of the Health Effects Division, of the Office of Pesticide Programs evaluated the carcinogenic potential of Glyphosate in accordance with the EPA's <i>Final Guidelines for Carcinogen Risk Assessment</i> (March, 2005). Attached please find the final Cancer Assessment Document.	