

ECONOMY-WIDE IMPLICATIONS OF PRESIDENT OBAMA'S AIR AGENDA

HEARING BEFORE THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE ONE HUNDRED FOURTEENTH CONGRESS FIRST SESSION

SEPTEMBER 29, 2015

Printed for the use of the Committee on Environment and Public Works



Available via the World Wide Web: <http://www.gpo.gov/fdsys>

U.S. GOVERNMENT PUBLISHING OFFICE

99-516 PDF

WASHINGTON : 2016

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
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ONE HUNDRED FOURTEENTH CONGRESS
FIRST SESSION

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ECONOMY-WIDE IMPLICATIONS OF PRESIDENT OBAMA'S AIR AGENDA

TUESDAY, SEPTEMBER 29, 2015

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The full committee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. James Inhofe [chairman of the full committee] presiding.

Present: Senators Inhofe, Boxer, Barrasso, Capito, Wicker, Fischer, Sullivan, Carper, Whitehouse, Merkley, Gillibrand and Markey.

OPENING STATEMENT OF HON. JAMES INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. The meeting will come to order.

I have shared this with a couple of the members. Some of us just came up from the Armed Services Committee. There were seven Republicans on the one side that are members of this committee and members of the other. So I am going to be asking the staff to coordinate with all the members on both sides to find a time other than 10 o'clock on Tuesday. Because I have given up getting Armed Services to change theirs.

So we have to very significant, we have the biggest overlap of any two committees in these two committees. So we are going to try to correct that.

Acting Assistant Administrator McCabe, thank you for taking the time to be here to talk about two of the most expensive and intrusive Federal regulations ever put forward in the history of this Country: the National Ambient Air Quality Standard, or NAAQS, ozone and the recently finalized carbon standards for power plants. Your agency is attempting to restructure our entire energy system while simultaneously controlling economic expansion.

These regulations would cost hundreds of billions of dollars, leaving stakeholders with an economic burden that will take generations to pay down. These regulations stand to impact every industrial sector and would skyrocket the price of doing business in this Country, making us non-competitive. These regulations would reduce the domestic investment in associated jobs, likely shipping them overseas to countries like China with less stringent environmental standards.

I can remember when Lisa Jackson was first appointed to be the Director of the Environmental Protection Agency. She made the statement, in response to my question, if we have all these standards that we are going to meet in this Country, is this going to

have the effect of reducing emissions worldwide. She said no, because of course, this isn't where the problems is. The problem is in China, it is in India.

So I think we recognize now that it could actually, reductions here could cause our manufacturing base to go to countries where they don't have any restrictions and it could have the effect of increasing and not decreasing it.

Finally, these regulations could cause the most harm to low-income and minority families, as your agency forces a shift away from affordable, reliable electricity and limits access to jobs in the industry, manufacturing and transportation segment.

This was brought to our attention several times by the chairman of the Black Chamber of Commerce, talking about the adverse effect on the very poor and the minorities that this have. Those individuals who spend a much larger percentage of their expendable income to take care of things that they have to have, like heating their homes.

Overall, the costs and the benefits of these regulations are minimal at best. The final Clean Power Plan would cost hundreds of billions of dollars each year, while only reducing CO₂ concentrations by 0.2 percent, global temperatures by one one-hundredth of a degree Fahrenheit, and sea level rise by the thickness of two human hairs. EPA's ozone proposal would cost as much as \$1.7 trillion over the life of the proposal and result in 1.4 million lost jobs.

Up to 67 percent of the counties, and that is what we are talking about, when we are talking about ozone counties, as opposed to States, 67 percent of the counties would fail to meet the proposed lower standards. That is assuming the raise that they are talking about is between 65 and 70, I believe. In my State of Oklahoma, all of our counties, all 77 counties, are in attainment. If we went down to 65, none of the 77 counties, all 77 counties would be out of attainment. So it is a very significant thing personally, to me, and the State of Oklahoma.

Like many of the EPA's recent proposals, the carbon and ozone standards would have negligible environmental benefits, are based on questionable health benefits and come with unequivocal economic costs. Additionally, they are full of unreasonable assumptions and projections, including the EPA's projection that renewable generation would account for 28 percent of electricity production by 2030, when the wind and solar currently accounts for less than 5 percent. So you see this is something that very likely could not happen.

These regulatory actions are based on a dubious science and an accumulation of improper collusion with extremist environmental groups and their sue-and-settle tactics. These regulations face major legal obstacles and wide-reaching State opposition. For ozone, Colorado Democrats Senator Michael Bennet and Governor John Hickenlooper have joined Kentucky Governor Steve Beshear and others in voicing their concerns about impacts on local economies. Thirty-two States, 32 States oppose the proposed Clean Power Plan. Opposition is growing against the final version. It is very telling when you have a Democrat Senator who is generally supportive of the EPA's efforts calling the final rule a slap in the face.

EPA is essentially cutting corners in a shameless attempt to promote President Obama's environmental legacy. I am eager to hear why this agency is steamrolling ahead and requesting billions of taxpayer dollars be spent on proposals that are not only rejected by the States, which is happening today, but ignore the will of Congress, rely on unreasonable assumptions, cost billions and increase the cost of doing business and do nothing to impact public health and global warming.

On that happy note, I will recognize Senator Boxer.
[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR
FROM THE STATE OF OKLAHOMA

Acting Assistant Administrator McCabe, thank you for taking the time to be here. We are here today to talk about two of the most expensive and intrusive Federal regulations ever put forward in the history of this country: the National Ambient Air Quality Standard for Ozone and the recently finalized carbon standards for power plants. Your agency is attempting to restructure our entire energy system while simultaneously controlling economic expansion.

These regulations would cost hundreds of billions of dollars leaving stakeholders with an economic burden that will take generations to pay down. These regulations stand to impact every industrial sector and would make the price of doing business in this country more expensive. These regulations would reduce domestic investment and associated jobs, likely shipping them overseas to countries like China with less stringent environmental standards. And finally, these regulations would cause the most harm to low-income and minority families as your agency forces a shift away from affordable, reliable electricity and limits access to jobs in the energy, manufacturing and transportation sectors.

For all of these costs, the "benefits" of these regulations are minimal at best. The final Clean Power Plan would cost hundreds of billions of dollars each year while only reducing CO₂ concentrations by 0.2 percent, global temperature by 1/100th of a degree Fahrenheit and sea level rise by the thickness of two human hairs. EPA's ozone proposal would cost as much as \$1.7 trillion over the life of the proposal and result in 1.4 million lost jobs. Up to 67 percent of counties would fail to meet the proposed lower standards, which means they would face a legacy of EPA regulatory oversight, stiff Federal penalties, lost highway dollars, restrictions on infrastructure investment, and increased costs to businesses.

Like many of the EPA's recent proposals, the carbon and ozone standards would have negligible environmental benefits, are based on questionable health benefits, and come with unequivocal economic costs. Additionally, they are full of unreasonable assumptions and projections, including the EPA's projection that renewable generation would account for 28 percent of electricity production by 2030 when wind and solar currently account for less than 5 percent, which has taken decades to achieve and significant Federal subsidization.

These regulatory actions are based on dubious science and are the culmination of improper collusion with extremist environmental groups and their sue-and-settle tactics.

These regulations face major legal obstacles and wide reaching State opposition. For ozone, Colorado Democrats Senator Michael Bennet and Governor John Hickenlooper have joined Kentucky Governor Steve Beshear and others, in voicing their concerns about the impacts on local economies. 32 states opposed the proposed Clean Power Plan and opposition is growing against the final version. It's very telling when you have a Democrat Senator who is generally supportive of the EPA's efforts calling the final rule a "slap in the face." (Senator Heitkamp's response to the final Clean Power Plan).

EPA is essentially cutting corners in a shameless attempt to promote President Obama's environmental legacy. I'm eager to hear why this Agency is steamrolling ahead and requesting billions of taxpayer dollars be spent on proposals that are not only rejected by states, but ignore the will of Congress, rely on unreasonable assumptions, cost billions, increase the cost of doing business, and do nothing to impact public health or global warming.

**OPENING STATEMENT OF HON. BARBARA BOXER, U.S.
SENATOR FROM THE STATE OF CALIFORNIA**

Senator BOXER. Thank you so much, Mr. Chairman.

Thanks for today's hearing, where we are going to example two critically important efforts to protect the health of our children and our families: a proposed rule to strengthen the ozone standards and the final standards to reduce carbon pollution from power plants.

This week, EPA is expected to issue its final rule to strengthen the ozone standard. I am hopeful EPA will issue a strong standard that will protect American children, children like Jackson Woodward, an eighth-grader, 13 years old, from my State, Vacaville, California. Jackson, who suffers from asthma, wrote an opinion piece in the Sacramento Bee, explaining why a stronger ozone standard is important. This is just the way he finished his op-ed: "I would like to continue playing outdoors and competing at a national level in track and field and cross-country. Having cleaner air will help me achieve my goals. I don't want to have to keep telling the EPA to clean up our air. I just want to be able to breathe." It was called A Plea for Clean Air, May 9th, 2015. I ask unanimous consent to put that into the record.

Senator INHOFE. Without objection, so ordered.

[The referenced information follows:]

THE SACRAMENTO BEE

MAY 9, 2015

Read more here: <http://www.sacbee.com/opinion/california-forum/article20534364.html#storylink=cpy>

A plea for cleaner air



Emissions of ozone, a smog-causing pollutant, are linked to asthma, heart disease and premature death. **Luke Sharrett** New York Times file

BY JAXIN WOODWARD

Special to The Bee

I am 13 years old, and I have asthma.

Having cleaner air is important to me because it lowers the chances of my asthma being triggered. I take daily medication to control my asthma symptoms, but I don't let these symptoms stop me from playing outdoors or competing nationally in track and field and cross country.



Jaxin Woodward

My long-term goal is to compete in cross country and track in high school and college. My short-term goal is to bring home two USA Track and Field Youth Championship medals in the 800 meters and 1,500 meters this summer in Illinois. To accomplish this I must follow my asthma treatment plan from my nurse very carefully.

This plan is usually updated yearly, but because of my competition level and travel, I need to see my nurse every four to six months and before I leave the state. I also have to use another, stronger medication when traveling to different climates because of humidity or air pollutants.

Although I take my medications and follow my treatment plan carefully, I still worry about air pollution because it triggers my asthma symptoms. When I smell

air pollutants, such as smoke or exhaust, I quickly cover my mouth and nose because my nose starts to sting and my breathing quickly changes. I begin to take short breaths so that I don't deeply inhale these pollutants. This means that getting a full breath of air, clean air, is really hard for me. It also usually means my mom needs to have a nebulizer on hand to give me treatment.

As a youth ambassador for the American Lung Association, I know that bad air doesn't just affect me and my mom, it also hurts many others with asthma and lung disease. Earlier this year, I testified in front of the Environmental Protection Agency in Sacramento, for the second time, at a hearing about ozone. I was there to share my story and let them know how important clean air is to me.

Ozone, also known as smog, causes millions of asthma attacks every year in the United States. According to this year's recently released American Lung Association "State of the Air 2015" report, Californians are among the nearly half of all Americans – more than 138 million – who live in counties where ozone or particle pollution levels make the air unhealthy to breathe. The report, which is like a report card for America's air, gave Sacramento County an F and ranked the city of Sacramento as one of the most polluted in the country. We also had more high pollution days than in years past.

I would like to continue playing outdoors and competing at a national level in track and field and cross country. Having cleaner air will help me to achieve my goals. I don't want to have to keep telling the EPA to clean up our air. I just want to be able to breathe.

Jaxin Woodward of Vacaville is an eighth-grader at Vaca Peña Middle School.

Read more here: <http://www.sacbee.com/opinion/california-forum/article20534364.html#storylink=cpy>

Senator BOXER. I just think that we all agree that this child who suffers from asthma should be able to live a normal life. But from some of our rhetoric here it seems like we are putting other interests ahead of the interests of children like Jackson. I don't think that is what this committee is for. We are not a committee to represent polluters. We are a committee to represent families and fight for families.

Now, the Clean Air Act requires EPA to set the maximum level of an air pollutant such as ozone that is safe for us to breathe. Setting an appropriate standard is crucial. Everyone has a right to know the air they breathe is safe. As I have said many times, maybe you have had this happen, I have not had one constituent come up and tell me the air is too clean, stop cleaning up the air. They don't say that. On the contrary, they say, keep on fighting, keep on going. We need clean air, clean water, we need safe drinking water and the rest.

So despite what some of my friends on the other side may claim today, scientists agree that EPA needs to adopt a stricter standard to protect the health of our people, especially our children and the elderly. If we can't do that, what good are we? We have known since 2008 the current ozone standard does not provide the necessary health safeguards.

According to a new American Lung Association poll, an overwhelming majority of voter, 73 percent across every party line in every area of the Country, supports stricter ozone standards. So I don't care if one of my colleagues feels differently, that is his right. Good for him. But the important thing is to listen to the people, not to each other. Listen to the people.

Fifty-two percent of Republicans support strengthening the ozone standards. So why don't we start listening to the people?

In addition to its efforts to strengthen ozone standards, the EPA is working to protect the American people from the dangers of unchecked climate change. This hearing comes less than a week after the Pope called on Congress to "avert the most serious effects of the environmental deterioration caused by human activity." I hope we will not ignore his call. And this rule is a test as to whether we will heed his call.

The Obama administration's Clean Power Plan will help America lead the way to avert the worst impacts of climate change, such as sea level rise, dangerous heat waves, economic disruption. One critical way we can address it is to reduce the dangerous carbon pollution from the biggest source, power plants. The Clean Power Plan will reduce pollution from existing power plants and EPA's New Source Performance Standards will ensure new power plants apply the best available technologies moving forward.

This is a cornerstone of achieving our international commitments and the announcement President Obama made last week with the president of China shows that U.S. leadership on addressing climate change is working. But it won't work if we are divided here. The American people again overwhelmingly support action. A Stanford University poll from earlier this year found that 83 percent of Americans, including 61 percent of Republicans, say that climate change will be a problem in the future if nothing is done to reduce

carbon pollution. And 74 percent of Americans say the Federal Government should take action to combat climate change.

Our committee is really in a place where we can listen to the American people and move forward. The Clean Power Plan will save money, because by 2030, the estimates are that American families will save \$85 a year on their electricity bills. My husband and I put a solar rooftop on our home. And we are paying about a quarter of what most of the people in the neighborhood are paying who haven't done this. It works. I feel it in my pocketbook.

A huge number of Americans commented on that proposed rule. And EPA has issued a strong final rule that will reduce carbon pollution by 32 percent over the next 15 years.

So I commend EPA for issuing these first-ever carbon pollution standards for power plants. As I often say, if you can't breathe, you can't work or go to school. So people who say, oh, we are going to hurt the economy, just look at the last Clean Air Act. Look at GDP. Look at employment. It is all good news story. And I hope we can stop fighting and start working together.

I thank you, Mr. Chairman.[The prepared statement of Senator Boxer follows:]

STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR
FROM THE STATE OF CALIFORNIA

Today's hearing will examine two critically important efforts to protect the health of our children and families—a proposed rule to strengthen the ozone standard and the final standards to reduce carbon pollution from power plants.

This week, EPA is expected to issue its final rule to strengthen the ozone standard. I am hopeful that EPA will issue a strong standard that will protect American children like Jaxin Woodward, an eighth-grader from Vacaville, California. Jaxin, who suffers from asthma, wrote an op-ed in the Sacramento Bee explaining why a stronger ozone standard is so important:

"I would like to continue playing outdoors and competing at a national level in track and field and cross country. Having cleaner air will help me to achieve my goals. I don't want to have to keep telling the EPA to clean up our air. I just want to be able to breathe."

I think we can all agree with that. I ask unanimous consent to place this op-ed in the record.

The Clean Air Act requires EPA to set the maximum level of an air pollutant, such as ozone, that is safe for us to breathe. Setting an appropriate standard is crucial to protecting the health of millions of Americans. Everyone has a right to know that the air they breathe is safe—and science tells us we need a stronger standard.

Despite what some of my Republican colleagues may claim today, scientists overwhelmingly agree that EPA needs to adopt a stricter standard to protect the health of the American people, especially our children and the elderly. We have known since 2008 that the current ozone standard does not provide the necessary health safeguards.

According to a new American Lung Association poll, an overwhelming majority of voters—73 percent—across party lines and from every region of the country support stricter ozone standards. The poll found that 52 percent of Republicans support strengthening the standards.

In addition to its efforts to strengthen the ozone standard, EPA is also working to protect the American people from the dangers of unchecked climate change. This hearing comes less than a week after Pope Francis called on Congress "to avert the most serious effects of the environmental deterioration caused by human activity." I hope we will not ignore this call.

The Obama administration's Clean Power Plan will help America lead the way to avert the worst impacts of climate change—such as sea level rise, dangerous heat waves, and economic disruption.

One critical way we can address climate change is by reducing dangerous carbon pollution from the biggest source—power plants. The Clean Power Plan will reduce pollution from existing power plants, and EPA's New Source Performance Standards

will ensure new power plants apply the best available technologies to limit carbon pollution moving forward.

This is a cornerstone of achieving our international commitments to reduce harmful carbon pollution. The announcement President Obama made last week with President XI of China shows that US leadership on addressing climate change is working and that other countries are willing to act.

The American people overwhelmingly support action. A Stanford University poll from earlier this year found that 83 percent of Americans, including 61 percent of Republicans, say that climate change will be a problem in the future if nothing is done to reduce carbon pollution. And 74 percent of Americans say the Federal Government should take action to combat climate change.

The Clean Power Plan will save consumers money. By 2030, the EPA estimates American families will save, on average, \$85 a year on their electricity bills.

A huge number of Americans—4.3 million—commented on the proposed rule for existing power plants, and EPA has issued a strong final rule that will reduce carbon pollution by 32 percent over the next 15 years.

I commend EPA for issuing these first ever carbon pollution standards for power plants, and I look forward to the final ozone rule fulfilling EPA's obligation under the Clean Air Act to set a standard that will protect public health.

I often say, if people can't breathe, they can't go to work or school. These two rules will cut air pollution—keep kids healthy and in school, keep people out of the emergency room and save lives.

Senator INHOFE. Thank you, Senator Boxer.

Administrator McCabe, you are recognized.

STATEMENT OF HON. JANET McCABE, ACTING ADMINISTRATOR FOR THE OFFICE OF AIR AND RADIATION, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Ms. McCABE. Thank you, Senator, thank you, Senator Boxer, members of the committee. I am very pleased to be here with you this morning.

On August 3d, President Obama and EPA Administrator Gina McCarthy announced the final Clean Power Plan, a historic and important step in reducing carbon pollution from power plants that takes concrete action to address climate change, as well as final standards limiting carbon pollution from new, modified and reconstructed power plants, and a proposal for a Federal plan and model rules that demonstrate clear options for how States can implement the Clean Power Plan in ways that maximize flexibility for power plants in achieving their carbon pollution obligations.

Shaped by a process of unprecedented outreach and public engagement that is still ongoing, the final Clean Power Plan is fair, flexible and designed to strengthen the fast-growing trend toward cleaner and lower-pollution American energy. It sets strong but achievable standards for power plants and reasonable goals for States to meet in cutting the carbon pollution that is driving climate change, tailored to their specific mix of sources. It also shows the world that the United States is committed to leading global efforts to address climate change.

The final Clean Power Plan mirrors the way electricity already moves across the grid. It sets standards that are fair and consistent across the Country and they are based on what States and utilities are already doing to reduce CO₂ from power plants. It gives States and utilities the time and a broad range of options they need to adopt strategies that work for them.

These features of the final rule, along with tools like interState trading and emissions averaging, means States and power plants can achieve the standards while maintaining an ample and reliable

electricity supply and keeping power affordable. When the Clean Power Plan is fully in place in 2030, carbon pollution from the power sector will be 32 percent below 2005 levels. The transition to cleaner methods of generating electricity will better protect Americans from other harmful pollution, too, meaning we will avoid thousands of premature deaths and suffer thousands fewer asthma attacks and hospitalizations in 2030 and every year beyond.

States and utilities told us they needed more time than the proposal gave them, and we responded. In the final rule, the compliance period does not kick in until 2022, rather than 2020. The interim reductions are more gradual. States can determine their own glide path, and any State can get up to 3 years to submit a State plan.

We heard the concerns about reliability. We listened and we consulted with the planning and reliability authorities, with FERC and with the Department of Energy. The final Clean Power Plan reflects this input and it includes several elements to assure that the plan requirements will not compromise system reliability.

In addition, to provide an extra incentive for States to move forward with planned investments, we are creating a clean energy incentive program that will recognize early progress. Since issuing the final Clean Power Plan, EPA has continued to engage with States, territories, tribes, industry groups, community organizations, health and environmental groups, among others. To help States and stakeholders understand the plan and to further support States' efforts to create plans that suit their needs, EPA has developed a variety of tools and resources, largely available on our website. We remain committed to assisting States with the development and implementation of their plans.

I also want to mention that the agency, as has been noted, is in the process of completing another significant air pollution rule. Because the air we breathe is so important to our overall health and well-being, the Clean Air Act requires EPA to review the National Ambient Air Quality Standards every 5 years to make sure that they 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's scientists and technical experts, in November, 2014, EPA proposed to strengthen the ozone standard to within the range of 65 to 70 parts per billion to better protect Americans' health and welfare. We invited comments on all aspects of the proposal, including on alternative levels, and we will issue a final rule by October 1st.

We are convinced by both our analyses and our experiences that both the carbon pollution reduction called for under the Clean Power Plan and the attainment of the ozone standard will extend the trajectory of the last 40 years when we cut air pollution 70 percent across this Country while our economy has tripled.

Again, thank you to the committee for inviting me to speak on the agency's work to implement our Nation's environmental laws to protect public health and the environment. I look forward to your questions. Thank you, Senator Inhofe.

[The prepared statement of Ms. McCabe follows:]

**Opening Statement of Janet McCabe
Acting Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency**

**Economy-wide Implications of President Obama's Air
Agenda**

**Committee on Environment and Public Works
United States Senate
September 29, 2015**

Chairman Inhofe, Ranking Member Boxer, members of the Committee: Thank you for the opportunity to testify today. The Administration has made great strides in clean air over the last six years. My written testimony will focus mostly on the Clean Power Plan, and then touch briefly on EPA's proposed ozone standard.

On August 3, 2015, President Obama and EPA Administrator Gina McCarthy announced the final Clean Power Plan – an historic and important step in reducing carbon pollution from power plants that takes concrete action to address climate

change – as well as final standards limiting carbon pollution from new, modified, and reconstructed power plants and a proposal for a Federal Plan and Model Rules that demonstrate clear options for how states can implement the Clean Power Plan in ways that maximize flexibility for power plants in achieving their carbon pollution obligations.

Shaped by a process of unprecedented outreach and public engagement that is still ongoing, the final Clean Power Plan is fair, flexible and designed to strengthen the fast-growing trend toward cleaner and lower-polluting American energy. It sets strong but achievable standards for power plants, and reasonable goals for states to meet in cutting the carbon pollution that is driving climate change, tailored to their specific mix of sources. It also shows the world that the United States is committed to leading global efforts to address climate change.

The final Clean Power Plan mirrors the way electricity already moves across the grid. It sets standards that are fair, and consistent across the country - and that are based on what states and utilities are already doing to reduce CO₂ from power plants. And it gives states and utilities the time and broad range of options they need to adopt strategies that work for them.

These features of the final rule, along with tools like interstate trading and emissions averaging, mean states and power plants can achieve the standards while maintaining an ample and reliable electricity supply and keeping power affordable.

The transition to clean energy, driven by a combination of federal and state policies and economic opportunity created by the market, is happening faster than anticipated – even since we proposed the Clean Power Plan last year. This means carbon and air pollution are already decreasing, improving public health each and every year.

The Clean Power Plan adds to and accelerates this ongoing momentum, putting us on pace to cut this dangerous pollution to historically low levels, while driving the innovation that has always allowed America to grow our economy – and export clean technologies – while cutting pollution.

When the Clean Power Plan is fully in place in 2030, carbon pollution from the power sector will be 32 percent below 2005 levels, making sure that ongoing progress continues.

The transition to cleaner methods of generating electricity will better protect Americans from other harmful air pollution, too. By 2030, emissions of sulfur dioxide from power plants will be 90 percent lower than 2005 levels, and emissions of nitrogen oxides will be 72 percent lower. Because these pollutants can lead to more dangerous particle pollution and smog, the historically low levels mean we will avoid thousands of premature deaths and suffer thousands fewer asthma attacks and hospitalizations in 2030 and every year beyond.

The Clean Power Plan itself is thus projected to result in climate and health benefits of \$34 to \$54 billion.

EPA's unprecedented outreach effort, including hundreds of meetings with scores of stakeholders and state officials across the country and 4.3 million public comments helped shape the final rule, and it is better because of it. In fact, it's more readily achievable, and more affordable, too.

States and utilities told us they needed more time than the proposal gave them—and we responded. In the final rule, the compliance period does not kick in until 2022. That's an across-the-board two-year extension beyond the proposal's 2020

compliance date. To further address what some commenters called a “cliff,” we made the interim reductions more gradual between 2022 and 2029 and provided additional flexibility for states to determine their own glidepath of emissions reductions from 2022 to 2030 with a less stringent starting point. The final rule also gives any state that needs extra time up to three years to submit to EPA state plans.

Because states requested it, we also proposed a model rule they can adopt as their state plans. This makes it simple for states to adopt interstate trading – a feature for which many utilities and system operators advocated. But states don’t have to use our plan—they can cut carbon pollution in whatever way makes the most sense for them, including developing their own interstate trading program.

EPA is committed to acting to ensure that both state plans and any federal plan that may be needed will be in place in accordance with the rule. The EPA would finalize a federal plan for a given state only in the event that the state did not submit an approvable plan by the deadlines specified in the final Clean Power Plan and that the EPA took action either finding that the state had failed to submit a plan or disapproving a submitted plan

because it did not meet the requirements of the rule. Even then, states would remain free - and the EPA in fact would encourage states - to submit state plans that could replace the federal plan.

We heard the concerns about reliability. We listened and we participated in all of FERC's technical conferences, and we consulted with the planning and reliability authorities, FERC and the Department of Energy (DOE) as we considered the many comments we received on this issue. The final Clean Power Plan reflects this input and it includes several elements to assure that the plan requirements would not compromise system reliability. These features include a long lead time before the compliance period begins and a gradual glide path to 2030 which allows states to achieve compliance across an eight-year averaging period; a requirement that states consider reliability as they develop their state plans; a basic design that allows states and affected EGUs flexibility to include a large variety of approaches and measures to achieve the environmental goals in a way that is tailored to each state's and utility's energy resources and policies, including trading within and between states, and other multi-state approaches; and a reliability safety valve to address situations where, due to an unanticipated event or other extraordinary

circumstances, there is a conflict between the requirements imposed on an affected power plant and maintaining reliability.

In addition to the measures outlined in the rule, EPA, DOE, and FERC are coordinating efforts to monitor the implementation of the final rule to help preserve continued reliable electricity generation and transmission.

In addition, to provide an extra incentive for states to move forward with planned investments, we're creating a Clean Energy Incentive Program that will recognize early progress. This incentive program rewards early investments in wind and solar generation, as well as demand-side energy efficiency programs implemented in low-income communities.

Since issuing the final Clean Power Plan, EPA has continued to engage with states, territories, tribes, industry groups, community organizations, health and environmental groups, among others. States have asked for clarification and further information in several areas, including, for example, how to choose the best state plan approach for their particular circumstances, what different options states should consider in designing plans that allow for multi-state coordination or trading, and what is required

for an initial plan submittal. We have been answering questions and will continue to work with states, utilities, and other stakeholders to provide more information on each of these topics.

To help states and stakeholders understand the Clean Power Plan and to further support states' efforts to create plans that suit their needs, EPA has developed a variety of tools and resources, which are largely available on our website (<http://www.epa.gov/cleanpowerplan>), and we remain committed to assisting states with development and implementation of their state plans.

I also want to mention that the Agency is in the process of completing another significant air pollution rule. Because the air we breathe is so important to our overall health and well-being, the Clean Air Act requires EPA to review the National Ambient Air Quality Standards (NAAQS) every five years to make sure that they 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 scientists and technical experts, Administrator McCarthy's judgment was that the current ozone standard of 75 parts per billion is not adequate to protect the

public health. In November 2014 EPA proposed to strengthen the standard to within the range of 65 to 70 parts per billion to better protect Americans' health and welfare. We invited comments on all aspects of the proposal, including on alternative levels as low as 60 parts per billion, and acknowledged interest among some stakeholders in offering comment on retaining the existing standard. The Agency received more than 430,000 comments on the proposal and we will issue a final rule by October 1, 2015.

We are convinced by both our analyses and our experiences that both the carbon pollution reduction called for under the Clean Power Plan and the attainment of the ozone standard will extend the trajectory of the last 40 years when we've cut air pollution 70 percent—all while our economy has tripled.

I again thank the Committee for inviting me to speak on the Agency's work to implement our nation's environmental laws to protect public health and the environment.

I look forward to your questions. Thank you.

Questions for the Record

Senate Committee on Environment and Public Works
Hearing entitled, "Economy-wide Implications of President's Obama's Air Agenda"
September 29, 2015

Acting Assistant Administrator Janet McCabe

Chairman Inhofe:

1. While NAAQS SIPs and attainment can take years, a new NAAQS is effective immediately for new air permits. Any delay in EPA's implementation guidance and updating air quality models makes it more difficult for businesses to expand and create jobs. Will EPA issue clear guidance to regions and States encouraging the use of near-term alternatives in any situation where the issuance of new implementation updates is delayed?

Answer: Much of the existing implementation rules and guidance for prior ozone standards remains applicable for the newly-revised NAAQS. EPA has also stated that it intends to propose selected revisions to its implementation rules within one year after the revised ozone standards are established (80 FR 65436; October 26, 2015). Concurrent with promulgation of the final revised NAAQS, the EPA also issued an implementation memo (https://www.epa.gov/sites/production/files/2015-10/documents/implementation_memo.pdf) describing rules and guidance that remain current and applicable to the revised standards, and updates that we expect to complete for states' use in planning for the revised NAAQS. With respect to modeling, the EPA anticipates issuing a final rule to update its Guideline on Air Quality Models (40 CFR part 51, appendix W; proposed July 2015) in summer 2016, and intends to provide a transition period before any new guidelines become effective.

2. What is EPA's plan to ensure that PSD permits are consistent with state and municipal compliance deadlines?

Answer: The CAA provides a one-year deadline for granting or denying a complete PSD permit application (§ 165(c)). In order to help states meet this deadline, the final ozone NAAQS rule contained a grandfathering provision to address certain pending permit applications received prior to the effective date of the new or revised NAAQS. The grandfathering provision allows such applications to be subject to the prior applicable NAAQS and not the 2015 Ozone NAAQS. Additionally, the EPA proposed a comprehensive update to the Guideline on Air Quality Models in Appendix W of 40 CFR part 51 (80 FR 45340, July 29, 2015). We intend to finalize the proposed rule in summer 2016. In conjunction with the changes to the Guideline the EPA also plans to provide additional information about PSD compliance demonstration tools to streamline the required demonstration that the proposed source will not cause or contribute to a violation of the NAAQS for fine particles and ozone.

3. What is EPA doing to alleviate permitting challenges to industry for the immediate change in the ozone NAAQS?

Answer: To avoid delays for permit applications already pending, in its final 2015 Ozone NAAQS Rule, the EPA provided a grandfathering provision for PSD permit applications that are sufficiently far enough along in the approval and issuance process on the effective date of a revised standard [80 FR 65292 at page 65431]. The provision allowed such pending permit applications meeting the qualification criteria in EPA's final rule to continue to be evaluated on the basis of the pre-existing NAAQS rather than the new or revised NAAQS. To facilitate implementation of the revised NAAQS, along with the final NAAQS rule, the EPA issued a memo "Implementing the 2015 Ozone National Ambient Air Quality Standards"

(https://www.epa.gov/sites/production/files/2015-10/documents/implementation_memo.pdf).

Additionally, the EPA proposed a comprehensive update to the Guideline on Air Quality Models in Appendix W of 40 CFR part 51 (80 FR 45340, July 29, 2015). We intend to finalize the proposed rule in summer 2016. In conjunction with the changes to the Guideline, the EPA also plans provide additional information about PSD compliance demonstration tools to streamline the required demonstration that the proposed source will not cause or contribute to a violation of the NAAQS for fine particles and ozone.

4. Since the new NAAQS takes effect 60 days after publication in the Federal Register, and expanding facilities have to comply immediate at the effective date of the new NAAQS, has EPA prepared guidance for these facilities on how exactly to obtain a preconstruction permit?

Answer: The final ozone NAAQS rule contained a grandfathering provision to address certain pending permit applications that were complete prior to the effective date of the new or revised NAAQS. The grandfathering provision allowed such applications to be subject to the prior applicable NAAQS and not the 2015 Ozone NAAQS. Other than this one provision, nothing about how a facility obtains a preconstruction permit has changed, and facilities will continue to follow the rules and guidance that have been issued by the permitting authority in their area. The EPA has proposed a comprehensive update to its Guideline on Air Quality Models in Appendix W of 40 CFR part 51 (80 FR 45340, July 29, 2015), which would have bearing on permit modeling for all NAAQS pollutants. We intend to finalize the proposed action in summer 2016. In conjunction with the changes to the Guideline, the EPA also plans to provide additional information about PSD compliance demonstration tools that could help streamline the required demonstration that the proposed source will not cause or contribute to a violation of the NAAQS for fine particles and ozone.

5. Due to your Agency's premature reconsideration of the current 2008 ozone standard soon after President Obama took office, EPA did not submit final nonattainment designations to states until May of 2012. EPA did not even publish state implementation plan guidelines until earlier this year. Given these simple facts, do you believe that states have had sufficient time to comply with the current standard?

Answer: The EPA and state co-regulators share a long history of managing ozone air

quality under the Clean Air Act (CAA), underpinned by a wealth of previously issued EPA rules and guidance. In particular for areas where states are still actively working toward attaining the 2008 ozone NAAQS, the EPA is committed to helping air agencies identify and take advantage of potential planning and emissions control efficiencies that may occur within the horizon for attaining the 2015 standards. We expect, however, that the vast majority of U.S. counties outside of California will meet the 2015 NAAQS by 2025 without taking additional action to reduce emissions.

6. The President is reported in the press recently as saying that “some of the concerns” raised by municipalities over “legitimate economic issues have to be considered.” I agree. Does the President support amending the Clean Air Act to allow at least some consideration of these legitimate economic issues?

Answer: While in setting primary and secondary standards that are “requisite” to protect public health and welfare the EPA may not consider the costs of implementing the standards, the NAAQS implementation process allows for consideration of costs. The two step process of a science-based NAAQS review every five years followed by implementation is a system that works. The history of implementing the Act shows that environmental protection and economic growth are compatible. Since its enactment in 1970, and subsequent amendment in 1977 and 1990—each time with strong bipartisan support—the CAA has improved the Nation's air quality and protected public health. Over that same period of time, the economy has grown over 200 percent while emissions of key pollutants have decreased nearly 70 percent. Forty-five years of clean air regulation have shown that a strong economy and strong environmental and public health protection go hand-in-hand. EPA is committed to ensuring that success will continue and is mindful of economic considerations in the guidance and rules we put in place to implement any new standards.

7. The President is also reported as having said that the potential benefits of a new standard in the number of lives saved and asthma cases averted is substantially higher than the costs. Does the President, and by extension the EPA, understand that a large portion of those benefits in the new standard is unrelated to ozone? Do you further understand that if you remove those non- ozone related benefits, the costs of the rule will exceed the benefits?

Answer: The same pollutants that form ozone in the atmosphere also form fine particles. Reducing NOx emissions will reduce both ozone and fine particle formation. EPA's standard practice, consistent with long-standing OMB guidance, is to estimate, to the extent data and methods allow, all of the health benefits of a rule. That only makes sense, because those benefits are real. More information on the breakout of ozone and PM benefits can be found in the Regulatory Impact Analysis (<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0169-0057>).

8. EPA's own analysis indicates that the vast majority of benefits claimed under its stringent ozone proposal actually come from reducing PM_{2.5}. Why are you issuing an ozone rule to reduce PM_{2.5}? Didn't EPA just issue a new standard for PM_{2.5}?

Answer: The same pollutants that form ozone in the atmosphere also form fine particles. Reducing NO_x emissions will reduce both ozone and fine particle formation. EPA's standard practice, consistent with long-standing OMB guidance, is to estimate, to the extent data and methods allow, all of the health benefits of a rule. More information on the breakout of ozone and PM benefits can be found in the Regulatory Impact Analysis (<http://www.regulations.gov/#?documentDetail;D=EPA-HQ-OAR-2013-0169-0057>).

9. With a lowered standard, EPA's own data suggests many additional areas will end up in nonattainment. An analysis of the three most recent years of ozone data show that 499 counties would be out of attainment or in metropolitan areas that are out of attainment with a 70 ppb standard. Won't the actual number be even greater given that EPA will make the nonattainment designations by 2017?

Answer: It is too soon to say how many areas will be designated nonattainment. EPA anticipates making final designations by October 1, 2017, likely based on 2014-2016 air quality data. EPA's most recent estimates based on 2012-2014 air quality data show that only 241 counties with monitors violate the 70 ppb standard, out of 2,407 counties nationwide. The 2012-2014 data is available here: <https://www.epa.gov/ozone-pollution/ozone-data-tables-1997-2008-and-2015-standards>. Given the ongoing improvements in ozone air quality achieved over the past decade, we anticipate that this number will be even lower at the time of designations. The designations process begins with states, and any tribes that choose to do so, recommending the designation for all areas of the state (or any relevant areas in Indian country) and the boundaries for those areas.

EPA will respond to those recommendations by June 1, 2017 and identify where the agency intends to modify the state/tribal recommendations. States and tribes will have the opportunity to comment on EPA's response, and provide new information and analyses for the agency to consider before it takes final action.

10. Earlier this year, EPA asked states to begin withdrawing outdated state plan revisions. As of this summer, there were over 650 outdated state plan revisions languishing at EPA.
- How will a new standard affect the backlog problem?
 - Doesn't the backlog of state plan submissions at EPA suggest that EPA is overwhelmed with just trying to implement the current standards, much less the new ones?
 - What will happen to this backlog when you start adding the SIP revisions needed to implement the Clean Power Plan?

Answer: EPA has been working with states since 2013 on plans to reduce the SIP backlog and address the states' priority SIPs. This work has resulted in four-year plans developed with states to substantially reduce the historic backlog of SIPs by the end of 2017. The SIPs for the 2015 ozone NAAQS are not due to be submitted to EPA until between 2019 and 2021. The backlog of SIPs is not suggestive that EPA is overwhelmed with implementing the current NAAQS. The implementation of the Clean Power Plan (CPP) is not expected to negatively impact our efforts to reduce the SIP backlog. The CPP does not require SIP revisions, but rather one plan for each state.

11. Isn't it true that EPA has finalized decisions in the past with regard to ambient air quality standards that have differed from CASAC's recommendation?

Answer: Yes

12. EPA's modeling indicates that its ozone standard may actually increase mortality in cities like Houston. Can you please explain how this rule could end up increasing deaths in some areas?

Answer: The EPA has addressed this issue in both the preamble to the final rule and in the Response to Comment document. The complex chemical reactions that take place in the atmosphere and how these reactions, in combination with certain local weather conditions, can affect the formation and destruction of ozone near emission sources are described on page 65300 of the final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf). The issue is further explained on pages 175-176 of the Response to Comment document (https://www3.epa.gov/ttn/naaqs/standards/ozone/s_o3_2008_rc.html).

13. While CASAC said it made a "scientific" judgment in recommending a 70 ppb ozone standard, it called its recommendations for standards lower than 70 ppb "policy advice." Can you explain the difference?

Answer: The EPA discussed the CASAC's advice, including its scientific judgment and policy advice, on page 65360 of the final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf).

14. EPA chose to project the costs of its proposed ozone standard in one year, 2025, eight years after counties will be designated as nonattainment under the proposal.
- Does EPA's modeling capture the full cost of lost economic activity that counties in nonattainment areas will experience during those eight years?
 - EPA chose to project the costs of its proposed ozone standard in 2025 since that would be the year in which most counties would have already attained the standards based on federal controls. Did EPA include in its cost, the many local controls that will be unnecessarily imposed? If EPA assumed longer compliance deadlines, shouldn't it write those compliance extensions into the final rule?

Answer: The EPA is providing for compliance flexibility similar to what has been provided under prior standards. The Clean Air Act provides for a range of actions to take place when an area is designated nonattainment. The specifics are discussed in further detail in section VII.5 of the preamble to the final rule (Nonattainment Area Requirements beginning on 80 FR 65437).

Consistent with Executive Order 12866, and OMB guidance, the EPA prepared a Regulatory Impact Analysis accompanying the final updates to the ozone NAAQS that shows the benefits and costs of illustrative control scenarios that states may choose in complying. Because states have flexibility in how to meet their goals, the actions taken to

meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated for these illustrative scenarios are available in the RIA.

Existing and proposed federal measures like vehicle standards and power plant rules are leading to substantial reductions in ozone nationwide, which will help improve air quality and public health and help many areas meet the revised standards. We expect that the vast majority of U.S. counties outside of California will meet the 2015 NAAQS by 2025 without taking additional action to reduce emissions.

15. EPA's own data shows that many national wilderness areas and national parks would fail EPA's stringent proposed ozone standards. Given those readings, should we not expect that such standards could have serious consequences on even marginally-economically developed areas?

Answer: Ozone in national parks and wilderness areas is affected by routine natural sources such as soil and vegetation emissions, natural event sources such as wildfires and stratospheric ozone intrusions, and transport from economically well-developed areas, with the latter being the dominant contributor most of the time. We expect that any such areas violating the ozone NAAQS will be heavily influenced by upwind well-developed areas. In each type of area, we expect that emission controls in upwind well-developed areas, in combination with the application of the Exceptional Events Rule and other CAA provisions, will go far in allowing national parks and wilderness areas to attain the ozone NAAQS.

16. EPA's proposed ozone air standards will substantially increase nonattainment areas across the country. In fact, many of America's most pristine national parks would have failed those standards. Does a policy that pushes the Grand Canyon and Yellowstone National Parks into nonattainment make sense? If pristine wilderness areas flunk the standard, how would developed areas ever find a way to comply with the standard?

Answer: EPA notes that the most recent design value for Yellowstone National Park is well below the revised ozone NAAQS. Moreover, to the extent any undeveloped areas exceed the standard, EPA expects that the source of the ozone, and the focus of ozone control, will be upwind developed areas. There may also be isolated areas that experience high ozone levels due to exceptional events such as stratospheric intrusions and wildfires, but the CAA provides a mechanism for addressing such events. States have primary responsibility for determining what control strategies to employ to attain the standard. The attainment plan for each area is unique in that it considers the appropriate set of emissions controls necessary to successfully achieve a standard in that area based on the characteristics of elevated ozone levels in each area.

17. High levels of natural background ozone may cause many otherwise clean states, especially in the West, to be unable to meet EPA's stringent ozone proposal even with costly emission controls. EPA says it can deal with these concerns through its "exceptional events" program. Yet, since 2008, Utah has submitted 12 exception event

demonstrations, and EPA has yet to approve one. EPA's track record on exceptional events has been terrible – why should we think the exceptional events program can provide ozone regulatory relief to states with high background ozone?

Answer: EPA has been working closely with states, especially western states, over the past several years to improve the process for development and review of exceptional events requests. On November 10, 2015, the EPA Administrator signed a Federal Register notice proposing revisions to the Exceptional Events Rule (http://www.epa.gov/sites/production/files/2015-11/documents/ee_nprm_11-20-15_80_fr_72840.pdf). We also issued a Notice of Availability and request for public comment on draft exceptional events implementation guidance that addresses Exceptional Events Rule criteria for wildfires that influence ozone concentrations. The EPA intends to assess comments and finalize the rulemaking in the summer of 2016. This would be in advance of the date by which states, and any tribes that wish to do so, would be required to make area designation recommendations for the revised NAAQS (e.g., October 2016). The wildfire guidance is expected to be finalized in the same timeframe as the rule revisions.

The EPA prioritizes review of exceptional event demonstrations to support actions with near-term regulatory significance, so as to most efficiently use state air agencies' and the EPA's limited resources. For example, on May 28, 2014, the EPA concurred with the Wyoming Department of Environmental Quality (Wyoming DEQ) demonstration for a stratospheric ozone intrusion event submitted to support an approval of an attainment finding for a marginal nonattainment area for the 2008 Ozone NAAQS, due on July 20, 2015. EPA Region 8 consulted with and supported the Wyoming DEQ during the development of their exceptional event demonstration to ensure it was compliant with CFR requirements and contained adequate justification for EPA concurrence. Through an interagency workgroup, the EPA helped identify and develop diagnostic tools that assist with stratospheric ozone intrusion demonstrations. The EPA is committed to continue assisting states with exceptional event demonstrations in light of the proposed revisions to the Exceptional Events Rule.

18. How many Exceptional Events, Rural Transport, and International Transport submissions has EPA received since the 1997 standard was finalized? How many exceptions did EPA grant?

Answer: The Clean Air Act contains provisions that can assist states in ensuring background ozone does not create additional control obligations as they continue their work to improve air quality. If a state provides an adequate assessment or demonstration, there are a few types of CAA-authorized relief they can legally invoke, which are described in the ozone NAAQS proposal. As examples, an area may be able to rely upon the exceptional events provisions of the Act to exclude certain emissions data from consideration during the process of area designations under a revised NAAQS, which could impact whether an area is designated nonattainment. An area also may be able to rely on certain provisions of the Act addressing international emissions when making attainment demonstrations, which could limit their ultimate control requirements and any consequences for failing to attain by the area's attainment date. Finally, the Administrator can determine that certain qualifying nonattainment areas are Rural Transport Areas, thus eliminating the need for states to develop an attainment plan. All of these CAA-authorized provisions have been used in the past for implementing ozone standards.

For the 1997 and 2008 ozone standards, no states requested that the EPA consider a nonattainment area as a rural transport area.

The rural transport provision was last used for designations in 1991 for the 1979 ozone standards. At that time, four states requested that EPA consider areas as rural transport areas. After evaluating the requests, the EPA determined that the four areas qualified to be treated as rural transport areas. These areas are: Door County Area, WI; Edmonson County Area, KY; Essex County Area (Whiteface Mountain), NY; and Smyth County Area (White Top Mountain), VA.

The CAA section 182(h) Rural Transport Area provision provides the Administrator with the discretion to treat an ozone nonattainment area as a rural transport area if the area is not part of, or adjacent to, a metropolitan statistical area and emissions from within the area do not make a significant contribution to ozone concentrations in the area or in other areas. The EPA developed draft guidance in 2005, titled "Criteria For Assessing Whether an Ozone Nonattainment Area is Affected by Overwhelming Transport" that explains the kinds of technical analyses that states could use to establish that transport of ozone and/or ozone precursors into the area is so overwhelming that the contribution of local emissions to an observed 8-hour ozone concentration above the level of the NAAQS is relatively minor and determine that emissions within the area do not make a significant contribution to the ozone concentrations measured in the area or in other areas. The document is available at http://www.epa.gov/scram001/guidance/guide/owt_guidance_07-13-05.pdf. The EPA will work with states to ensure all nonattainment areas eligible for treatment as rural transport areas are identified.

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.

The EPA has approved 179B demonstrations for five nonattainment areas. To date, all demonstrations have involved emissions from Mexico. Three of these SIPs addressed PM10, one addressed CO, and one addressed ozone.

Because states submit exceptional events demonstration packages directly to their reviewing EPA regional office, there is no central or national tracking system for the submission and review of exceptional events requests. Some air agencies and EPA regions have developed their own processes, systems, and criteria to track exceptional event-related information. EPA is available to work with states to prioritize review of any exceptional event demonstrations that would materially impact an attainment determination or nonattainment area classification.

19. What is the exact timeline for issuance of the Exceptional Events guidance?

Answer: On November 10, 2015, the EPA Administrator signed a Federal Register notice proposing revisions to the Exceptional Events Rule (http://www.epa.gov/sites/production/files/2015-11/documents/ee_nprm_11-20-15_80_fr_72840.pdf). We also issued a Notice of Availability and request for public comment on draft exceptional events implementation guidance that addresses Exceptional Events Rule criteria for wildfires that influence ozone concentrations. The EPA intends to assess comments and finalize the rulemaking in the summer of 2016. This would be in advance of the date by which states, and any tribes that wish to do so, would be required to make area designation recommendations for any potential revised NAAQS (e.g., October 2016). The wildfire guidance is expected to be finalized in the same timeframe as the rule revisions.

20. EPA claims ozone health benefits at levels below background. How can EPA claim health benefits at ozone levels that are impossible to achieve?

Answer: EPA's approach for estimating the benefits of reducing ozone pollution is based on the best available science. EPA's approach for estimating health benefits has been reviewed and approved by two Congressionally-created independent review boards – the Clean Air Scientific Advisory Committee (CASAC) and the Advisory Council on Clean Air Compliance Analysis (Council). There is no scientific basis for ignoring health benefits (including avoiding premature death) that occur as a result of reducing ozone and PM pollution.

21. I understand that EPA does not exclude Mexican and Canadian ozone emissions when it determines background levels of ozone. What could a county in my district do to control emissions in a foreign country?

Answer: Under the CAA, states are not required to reduce emissions not within their control, including international emissions. The Clean Air Act contains provisions that assist states in ensuring ozone in their area that results from certain sources of emissions outside their control does not create additional control obligations as they continue their work to improve air quality. In cases where transported emissions from Mexico or Canada prevent an area from meeting the NAAQS, an affected state may seek a determination under CAA section 179B, which relieves states from imposing control measures on emissions sources in the state's jurisdiction beyond those necessary to address reasonably controllable emissions within the U.S. Alternatively, if the state demonstrates that the transported foreign emissions meet the requirements of Section 319 of the CAA and the Exceptional Events Rule, then the affected air quality monitoring data could be excluded from design value calculations, which, in turn, could lead to regulatory relief from an initial area designation as nonattainment under the 2015 Ozone NAAQS (or any other future NAAQS).

Questions for the Record
Senate Committee on Environment and Public Works
Hearing entitled, "Economy-wide Implications of President's Obama's Air Agenda"
September 29, 2015

Acting Assistant Administrator Janet McCabe

Chairman Inhofe:

1. While NAAQS SIPs and attainment can take years, a new NAAQS is effective immediately for new air permits. Any delay in EPA's implementation guidance and updating air quality models makes it more difficult for businesses to expand and create jobs. Will EPA issue clear guidance to regions and States encouraging the use of near-term alternatives in any situation where the issuance of new implementation updates is delayed?

Answer: Much of the existing implementation rules and guidance for prior ozone standards remains applicable for the newly-revised NAAQS. EPA has also stated that it intends to propose selected revisions to its implementation rules within one year after the revised ozone standards are established (80 FR 65436; October 26, 2015). Concurrent with promulgation of the final revised NAAQS, the EPA also issued an implementation memo (https://www.epa.gov/sites/production/files/2015-10/documents/implementation_memo.pdf) describing rules and guidance that remain current and applicable to the revised standards, and updates that we expect to complete for states' use in planning for the revised NAAQS. With respect to modeling, the EPA anticipates issuing a final rule to update its Guideline on Air Quality Models (40 CFR part 51, appendix W; proposed July 2015) in summer 2016, and intends to provide a transition period before any new guidelines become effective.

2. What is EPA's plan to ensure that PSD permits are consistent with state and municipal compliance deadlines?

Answer: The CAA provides a one-year deadline for granting or denying a complete PSD permit application (§ 165(c)). In order to help states meet this deadline, the final ozone NAAQS rule contained a grandfathering provision to address certain pending permit applications received prior to the effective date of the new or revised NAAQS. The grandfathering provision allows such applications to be subject to the prior applicable NAAQS and not the 2015 Ozone NAAQS. Additionally, the EPA proposed a comprehensive update to the Guideline on Air Quality Models in Appendix W of 40 CFR part 51 (80 FR 45340, July 29, 2015). We intend to finalize the proposed rule in summer 2016. In conjunction with the changes to the Guideline the EPA also plans to provide additional information about PSD compliance demonstration tools to streamline the required demonstration that the proposed source will not cause or contribute to a violation of the NAAQS for fine particles and ozone.

25. EPA chose to project the costs of its proposed ozone standard to 2025, eight years after counties will be designated as nonattainment areas under the proposal. What consequences will those counties face from being designated nonattainment?

Answer: The Clean Air Act requires that within three years of EPA setting a new air quality standard, or revising an existing standard, EPA must designate areas as meeting the standards (attainment areas) or not meeting them (nonattainment areas) based on local air quality. The agency also may designate an area as unclassifiable, meaning there is not enough information to make a determination. Governors make initial designations recommendations, and EPA works closely with states and tribes as it determines initial designations and boundaries for nonattainment areas.

All states with nonattainment areas must develop emission inventories and implement a preconstruction permitting program designed to provide additional air quality safeguards for those areas. States with nonattainment areas classified as “Moderate” or higher must develop state implementation plans (SIPs) showing how the areas will meet the standards. These states also must adopt reasonable available control technology (RACT) standards for certain types of emission sources in the nonattainment. Emissions reductions from federal regulatory programs, such as the Tier 3 motor vehicle emissions standards, will provide a foundation that helps air agencies build successful strategies for attaining new ozone standards.

26. According to EPA, many of the emissions reduction controls needed to meet the stringent proposed ozone standard in the east and all of the reductions required in California have not even been invented yet. How does EPA explain the rationale of imposing this much burden on the American people when EPA itself doesn’t even know how this rule can be accomplished?

Answer: Some of the pollution controls in EPA’s Regulatory Impact Analysis are referred to as “unidentified controls.” The term “unidentified” does not mean that all of these controls or measures are commercially unavailable or do not exist. These may be “unidentified” because we do not have enough data to estimate engineering costs or because we do not know what a state is planning to require to achieve specific emission reductions.

Based on the Agency’s experience it is highly likely that new emissions controls or strategies will be developed and deployed over this time, but we do not currently have the data to include those technologies in our analysis.

27. The ozone proposal relies heavily on two exposure studies in which the overall results – by EPA’s own benchmark – did not indicate a clinically-significant link between ozone concentrations below the current standard and health effects. EPA ignores these overall results and instead relies on data from just 9 study participants to claim there are health effects below the current standard. Yet at least 5 other study participants showed health *improvements* from being exposed to ozone. Shouldn’t this caution EPA against over-interpreting outlier results from these studies?

The EPA does not agree with the question's characterization of the evidence from controlled human exposure studies. The EPA discussed its use of the results of controlled human exposure studies as the basis for the proposed decision starting on page 65317 of the final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf), 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.

28. Your Agency consistently touts the new body of scientific studies developed since the finalization of the 2008 standard. What studies were not included in the 2010-2011 reconsideration by the Obama Administration that are included in the development of this final rule?

Answer: The Administrator is confident that a primary standard with a level of 70 ppb will substantially improve public health protection across the country and will provide the adequate margin of safety the law requires - including for children, who are one of the groups most at risk from ozone exposure.

The scientific evidence on the effects of ozone on public health and welfare expanded significantly since EPA last completed a review of the standards in 2008 -- more than 1,000 new studies. This includes new 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. 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 final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf).

29. How many counties in the U.S. currently contain EPA-designated ozone monitors?
- How many ozone monitors does the EPA maintain across the U.S.?
 - When -- if ever -- will additional monitors be required?
 - Please detail the changes being made to the ozone monitoring networks, including any changes in monitor location, redistribution, density, location requirements, etc.

Answer: In 2014, there were 813 U.S. counties (25%) with ozone monitors reporting data to EPA, and 2,407 counties (75%) without monitors, based on a data retrieval from Air Quality System conducted in July 2015. EPA's ozone monitoring network requirements are population-oriented, and thus the 813 counties with ozone monitors represent about 229 million Americans, or 73% of the U.S. population based on 2010 Census estimates. The total size of the ozone network is 1,339 monitors based on a data retrieval conducted in July 2015. On a national basis, the ozone network is very stable in terms of monitored locations. Most monitors operate for long-term periods of five to ten or more years and are

rarely moved unless a site lease is terminated by a hosting party or the location becomes unacceptable due to siting issues (e.g., surrounding trees have grown too tall). Monitors may occasionally be added or removed due to CBSA population change and/or changes in design value. These requirements are found in 40 CFR Part 58, Appendix D. Ozone networks may also change due to longer-term ozone trends, monitors being discontinued where readings are well below the NAAQS, and monitors being added in areas where concentrations may be newly approaching or exceeding the NAAQS.

30. When will EPA issues implementation guidance for the new standard?

Answer: When we issued the final revised NAAQS, the EPA also issued an implementation memo describing rules and guidance that remain current and applicable to the revised standards, and updates that we expect to complete for states' use in planning for the revised NAAQS. Much of the existing implementation rules and guidance for prior ozone standards remain applicable for the newly-revised NAAQS. The EPA has also stated that it intends to propose selected revisions to its implementation rules within one year after the revised ozone standards are established (80 FR 65436; October 26, 2015), i.e., by October 2016. We intend to issue the final implementation rule by October 2017. The EPA will continue to prioritize updates to other implementation guidance materials with input from co-regulators and other stakeholders.

31. When did EPA send the ozone rule to the Federal Register? Did EPA request a publication date? When does EPA expect the rule to be published in the Federal Register?

Answer: The rule was published on October 26, 2015.

Clean Power Plan

1. Congressional intent alongside agency practice has typically resulted in less stringent emission standards for existing sources than for new sources. Why, under the final rule, is the standard for existing power plants more stringent than the standard for new power plants?

Answer: This question is discussed in Section XI of the 111(b) preamble and in the "Legal Memorandum Accompanying Clean Power Plan for Certain Issues" (<https://www.epa.gov/sites/production/files/2015-11/documents/cpp-legal-memo.pdf>). This question is the subject of pending litigation in the D.C. Circuit and EPA addressed the question in the brief that it filed on March 28, 2016.

2. Recently, EPA Administrator McCarthy stated that you expect "the majority" of states to submit a State Implementation Plan. How many states have currently committed to submit a final SIP in 2016 and how many do you currently expect to request an extension?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. While the stay is in effect, the submittal requirements are suspended.

3. In order to get a two-year extension to 2018, states must provide “a demonstration of how they have been engaging with the public, including vulnerable communities, and a description of how they intend to meaningfully engage with community stakeholders during the additional time (if an extension is granted) for development of the final plan.”
 - a. How does the agency define “vulnerable communities”?
 - b. How does the agency define “meaningful” engagement?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. While the stay is in effect, the submittal requirements are suspended.

In the final Clean Power Plan (<https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>), the EPA referenced examples of vulnerable communities broadly as low-income communities, communities of color, and indigenous populations that are most affected by, and least resilient to, the impacts of climate change, and are central to our community and environmental justice considerations. The EPA envisions meaningful engagement to include outreach to vulnerable communities, sharing information, and soliciting input on state plan development and on any accompanying assessments. Regarding meaningful engagement, the CPP references two guidance documents on page 64858 that provide further information on how to effectively engage vulnerable communities, including the EPA's May 2015 *Guidance on Considering Environmental Justice During the Development of Regulatory Actions* (<http://www3.epa.gov/environmentaljustice/resources/policy/considering-ej-in-rulemaking-guide-final.pdf>), and the document *Considering Environmental Justice in Permitting* (<http://www3.epa.gov/environmentaljustice/resources/policy/plan-ej-2014/plan-ej-permitting-2011-09.pdf>).

In addition, with respect to the initial submittals, on October 22, 2015, the EPA issued a Memorandum titled, “Initial Clean Power Plan Submittals under Section 111(d) of the Clean Air Act” (<http://www3.epa.gov/airquality/cpptoolbox/cpp-initial-subm-memo.pdf>) which provides additional assistance and information to states interested in seeking an extension of time in which to develop and submit a final plan under section 111(d) of the CAA.

4. Some Clean Power Plan supporters have suggested EPA can impose federal implementation plans before states have the opportunity to submit a state plan.
 - a. What is the earliest date that EPA will consider imposing a federal plan?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. While the stay is in effect, the submittal requirements are suspended. Generally speaking, the EPA can put a federal plan in place only after a state has not submitted an approvable plan by the required deadline.

5. EPA has repeatedly stated it will not take punitive actions, including restricting highway funds, for states that do not submit satisfactory state plans under the Clean Power Plan.
 - a. Is it true that even if a federal plan is imposed on a state, EPA can and will still delegate key aspects of implementation to the state? Please explain.
 - b. If a Federal Implementation Plan (FIP) is imposed, will states be able to subsequently

submit complete or partial state plans that would replace the federal plan? Are there any limits to those options?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. While the stay is in effect, the submittal requirements are suspended.

As proposed, the federal plan rule describes the actions that EPA will take if a state does not submit an approvable plan or if a state's plan fails to meet the requirements of the Clean Power Plan. The affected EGUs in a state that does not develop a state plan sufficient to meet the requirements of the CPP will be subject to the requirements of a federal plan that would be finalized after the EPA made a finding that the state had failed to submit an approvable plan.

However, as proposed, even where a federal plan is put in place for a particular state, that state will still be able to submit a plan, which, if approved, will allow the state and its sources to exit the federal plan.

Furthermore, under the proposed federal plan, states may take delegation of administrative aspects of the federal plan in order to become the primary implementers, or submit partial state plans in order to take over the implementation of a portion of a federal plan. States with EGUs operating under a federal plan may adopt complementary measures outside of that plan to facilitate compliance and lower costs to the benefit of power generators and consumers.

6. A recent U.S. Chamber white paper suggested: "An approved [state plan] under the pending [Clean Power Plan] could effectively give NGOs a seat at the table for decisions now made by the State alone. For instance, an NGO might sue an electric utility that it believed was failing to dispatch electricity or generate renewable energy in compliance with a [state plan] — even if the State did not share that belief.... An NGO could potentially sue local construction companies or building owners who fail to achieve a [state plan's] energy-efficiency requirements."¹
 - a. Is there any way that state plans would not be subject to enforcement actions by environmental litigants like the Sierra Club?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. While the stay is in effect, states will not be subject to any enforcement actions.

7. The New York Times quoted EPA officials who were then crafting the Clean Power Plan as saying its legal interpretation is "challenging" and that "this effectively hasn't been done." Given the novelty, shouldn't we wait to see how the courts rule on this "challenging interpretation" that "hasn't been done"?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. The Court's decision was not on the merits of the rule. 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.

8. The Supreme Court's *UARG v. EPA* decision sends a clear warning to EPA that expansive use of authority faces substantial legal hurdles. "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.'" EPA is seeking to overhaul the country's entire electric grid by reinterpreting a law that has been on the books for over 40 years. Where did Congress speak clearly to give the Agency such powers?

Answer: The EPA discussed its legal authority for the final Clean Power Plan in Chapter 4 of the final Clean Power Plan (80 Fed. Reg. 64,710 et seq.). Further, EPA's legal authority for the CPP is the topic of pending litigation in the D.C. Circuit and EPA addressed the question in the brief that it filed on March 28, 2016..

9. The Supreme Court's *UARG v. EPA* decision is clear that control technology "cannot be used to order a fundamental redesign of the facility," is "required only for pollutants that the source itself emits," and "may not be used to require reductions in a facility's demand for energy from the electric grid." Yet, the Clean Power Plan uses control technologies to redesign the entire electric grid, requiring controls well "outside the fence-line" of a power plant and often where no greenhouse gases are actually emitted. Is EPA concerned that the Clean Power Plan seems to be at odds with recent Supreme Court rulings?

Answer: The EPA discussed its legal authority for the final Clean Power Plan, including for considering the interconnected nature of the electric grid, in Chapter 4 of the final Clean Power Plan (80 Fed. Reg. 64,710 et seq.). Further, EPA's legal authority for the CPP is the topic of pending litigation in the D.C. Circuit and EPA addressed the question in the brief that it filed on March 28, 2016..

10. Environmental groups have argued that section 111(d) does not allow emissions trading because sources must continuously demonstrate compliance with performance standards. Does EPA agree or disagree with these environmental groups – can EPA set up an emissions trading program under 111(d)?

Answer: The final rule gives states the option to work with other states on multi-state approaches, including emissions trading that allow power plants to integrate their interconnected operations within their operating systems and their opportunities to reduce carbon pollution. EPA is committed to supporting states in the tracking of emissions, as well as tracking allowances and credits, to help implement multi-state trading or other approaches.

11. In 2010, EPA concluded that CO₂ emissions substantially larger than those from the Clean Power Plan had so little impact on global climate that "extrapolating from global metric to local effect with such small numbers . . . remain beyond current modeling capabilities." How, then, does EPA claim \$20 billion in climate benefits from modeling that attempts to tie changes in

global carbon metrics to local effects?

Answer: The Regulatory Impact Analysis (RIA) for the rule provides detailed information on the benefits and costs of the Clean Power Plan.
(<http://www.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule-ria.pdf>)

Ranking Member Boxer:

1. EPA has undertaken significant outreach to stakeholders on the Final Clean Power Plan. Can you describe in more detail the engagement EPA has had with states and other stakeholders since the final Clean Power Plan was signed? Can you also provide information on EPA's plans for outreach going forward?

Answer: On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. The Court's decision was not on the merits of the rule. 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. While the stay is in place EPA will take no action to implement or enforce the Clean Power Plan. As EPA has indicated, we will continue to work with states that want to work with us on a voluntary basis. Many states have asked us to move forward with our outreach and to continue providing support and developing tools, including the Clean Energy Incentive Program (CEIP) and the proposed model rules. EPA has received significant feedback on the CEIP and comment on the proposed model rules. We will move forward developing these actions in a way that is consistent with the stay.

2. I recently joined with colleagues on a letter to EPA regarding the Clean Energy Incentive Program. The program encourages renewable energy development but is focused on wind and solar power. There are many other renewable sources that could also help to reduce carbon pollution. Will EPA look at how this program can account for geothermal energy and other proven renewable power sources?

Answer: The Clean Energy Incentive Program (CEIP) is aimed at encouraging early actions to reduce carbon pollution by offering additional incentives to applicable sources achieving clean energy generation or energy savings during 2020 and/or 2021. The EPA designed the CEIP specifically to target the incentives it creates on investments that benefit low-income communities. State participation in the program is optional. The applicability of the CEIP to wind and solar energy generation, and to demand-side energy-efficiency in low-income communities has been established in the final CPP, and is limited to those activities. As explained in the final rule, we limited the renewable portion of the CEIP to projects that we believed could be developed within the CEIP timeframe. However, we have heard from various members of the public an interest in including other forms of renewable energy and are considering how to respond. In its plan, a state may take advantage of a range of types of renewable energy, including geothermal energy, to meet its required CO₂ goals.

3. EPA's Clean Power Plan gives significant flexibility to states in achieving the emissions reductions in the final rule. What steps did EPA take to give states flexibility in how they plan

for and achieve the reductions needed by 2030?

Answer: The final Clean Power Plan mirrors the way electricity already moves across the grid. It sets standards that are fair, and consistent across the country - and that are based on what states and utilities are already doing to reduce CO₂ from power plants. And it gives states and utilities the time and broad range of options they need to adopt strategies that work for them. These features of the final rule, along with tools like interstate trading and emissions averaging, mean states and power plants can achieve the standards while maintaining an ample and reliable electricity supply and keeping power affordable. The flexibility of the rule allows states to tailor their plans to meet their respective energy, environmental and economic needs and goals, and those of their local communities.

Senator Wicker:

1. EPA Regional staff referenced state-specific spreadsheets and calculations to state DEQs during calls and e-mails. MS along with other states requested copies of these documents, but they were never provided. Why did EPA not provide the states with information they requested and needed to adequately review and comment on the proposed rule?

Answer: Following the rollout of the proposed Clean Power Plan (CPP) to cut carbon emissions from existing power plants, we heard from stakeholders that an additional tool would help them understand each state's goal and the data and information released at proposal. We developed this excel-based tool in response to this suggestion. This "Goal Visualizer" tool did not provide any new information; instead, it presented existing publicly available data in an interactive format, using the steps outlined in the proposal and in the state goal computation technical support document. This resource was made publicly available on the Clean Power Plan webpage on 9/9/2014, well in advance of the close of the CPP proposed rule comment period (12/1/14). EPA has since provided an updated "Goal Visualizer" to reflect changes in the final Clean Power Plan. This new version is posted at <http://www.epa.gov/cleanpowerplanttoolbox>.

It should be noted that prior to posting the Goal Visualizer tool for the proposed CPP, some regional offices had independently developed spreadsheets to display the elements of state goal computations. In some cases these spreadsheets were shared with states. The Goal Visualizer tool was meant to provide a "one stop shop" to display goal development information for all states in a consistent format. In the case of Mississippi, MS DEQ requested the spreadsheet developed by EPA Region 4 on August 20, 2014. However, the spreadsheet was not sent in light of the forthcoming Goal Visualizer tool which was made available to all states a few weeks later.

2. After states commented on the Clean Power Plan that the renewable energy targets were unachievable when set using regional data rather than state-specific data, why did EPA continue to include and substantially increase the amount of proposed renewable energy?

Answer: The analysis of the Best System of Emission Reduction (BSER) for the final CPP does include more use of new renewable energy than at proposal based on up-to-date information clearly demonstrating the lower cost and greater availability of clean

generation than was evident at proposal. It takes into account recent reductions in the cost of clean energy technology, as well as projections of continuing cost reductions. The rationale for quantifying the level of renewable electricity generation achievable under building block 3 is discussed on page 64729 of the final Clean Power Plan (<https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>) and in Chapter 4 of the Greenhouse Gas Mitigation Measures Technical Support Document (<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-37115>).

3. South Mississippi Electric (SME) is a Generation & Transmission Cooperative serving over 419,000 homes and businesses throughout 55 counties in the State of Mississippi. One of SME's biggest concerns is the drastic and unproven shift to renewables in the final version of the Clean Power Plan that could require 21 percent of SME's generation to come from renewables by 2030. To meet the 2030 emissions rate, over 21 of these facilities would be required at a cost in excess of \$2 billion. SME currently has just over \$2 billion in assets that have been accumulated over about a 50 year time frame. How will people in my state be able to afford costs associated with the dramatic shift from fossil generation to renewable energy generation set forth in the Clean Power Plan?

Answer: The final Clean Power Plan sets strong but reasonable and achievable standards for power plants, providing national consistency, accountability and fair goals for emissions reductions. The final Clean Power Plan provides guidelines for the development, submittal and implementation of state plans that establish standards of performance or other measures for affected power plants in order to implement the interim and final carbon dioxide CO₂ emission performance rates. The flexibility of the rule allows states to reduce costs to consumers, minimize stranded assets and spur private investments in renewable energy and energy efficiency technologies and businesses. States can tailor their plans to meet their respective energy, environmental and economic needs and goals, and those of their local communities

4. Has EPA ever based performance standards on measures beyond the fence line of a source, as it does in the Clean Power Plan?

Answer: No, although the EPA explained in section XVIII(B)(2) of the Legal Memorandum Accompanying Clean Power Plan for Certain Issues why the rationale for the BSER in the final Clean Power Plan appropriately follows the Clean Air Act, as well as specific examples of prior regulations in which EPA based the BSER on "outside-the-fenceline" measures, that is, measures that individual sources could take that were outside of their individual plants but that reduced emissions. The Legal Memorandum is available at <http://www.epa.gov/sites/production/files/2015-11/documents/cpp-legal-memo.pdf>.

5. Has EPA ever claimed authority section 111(d) of the Clean Air Act to order a facility to stop operating, as it does in the Clean Power Plan?

Answer: No provision of the Clean Power Plan "orders a facility to stop operating." The Clean Power Plan does not tell states what their state plans must require of individual power plants, so by extension it does not have any requirements for what particular facilities will need to do as part of those plans. EPA is also not mandating the retirement of any coal plants. Each state will have the flexibility to design a program to meet the goal

in ways that reflect its particular circumstances and state-specific policy considerations. Power plants retire for many reasons, but the decision to retire a power plant is ultimately a market-driven business decision.

6. If EPA implements a lower ozone standard, many areas that are currently in attainment will not be. How will you help these jurisdictions navigate the complex and burdensome federal ozone standard bureaucracy and work to bring them back into attainment?

Answer: The EPA is committed to working with state, local and tribal air agencies to carry out the duties of air quality management for the 2015 ozone standards in a manner that maximizes common sense, flexibility and cost-effectiveness while abiding by the legal requirements of the Clean Air Act. The agency will work to ensure that all air agencies have adequate guidance, and new rules where necessary, to carry out Clean Air Act directives through the state implementation plan (SIP) process.

As required by the Clean Air Act, EPA anticipates making attainment/nonattainment designations for the revised standards by late 2017; those designations likely will be based on 2014-2016 air quality data. While current air quality data may not be a reliable indicator of likely nonattainment areas, 2012-2014 data indicate that many counties with design values above the 2015 ozone standards have previously been designated nonattainment for ozone, which suggests that there is already widespread experience with ozone nonattainment planning.

Thus, most states can build off work they are already doing to reduce pollution to help them meet the standards. However, for any area designated nonattainment for the first time, EPA will work closely with the appropriate air agency to ensure that they understand the SIP process and the statutory and regulatory requirements that apply to the area, and to share knowledge gained from other air agencies' experience in nonattainment planning for prior ozone NAAQS.

It is also worthwhile to note that EPA projections show that the vast majority of U.S. counties will meet the revised standards by 2025 without taking additional action to reduce emissions. Rather, existing and proposed federal rules, such as Tier 3 vehicle standards, Mercury and Air Toxics Standards, and measures to address the 2010 sulfur dioxide NAAQS will help states meet the standards by reducing ozone-forming pollution.

In addition, voluntary programs such as the Advance Program and ENERGY STAR help reduce emissions by encouraging states, counties, cities and tribes to take actions to maintain clean air in their communities and by reducing energy demand. Thirty-five areas in 18 states are participating in the Advance Program, implementing programs to protect air quality, such as minimizing congestion, improving public transit, reducing idling, increasing energy efficiency in buildings, and raising awareness about air quality. These programs are available now to any area or state looking to reduce ozone-forming emissions in an effort to avoid a nonattainment designation in the first place.

7. Did EPA use a fixed cap on costs for unknown controls in its latest cost projections of lowering the ozone standard, unlike in 2010 when EPA assumed that costs for "unknown controls" increased as more pollution was removed?

Answer: Some of the pollution controls in EPA's Regulatory Impact Analysis are referred to as "unidentified controls." The term "unidentified" does not mean that all of these controls or measures are commercially unavailable or do not exist. These may be "unidentified" because we do not have enough data to estimate engineering costs or because we do not know what a state is planning to require to achieve specific emission reductions. The EPA discusses unidentified controls in section 4.2 beginning on page 4-16 of the RIA accompanying the final NAAQS (<https://www.regulations.gov/documentDetail;D=EPA-HQ-OAR-2013-0169-0057>).

Based on the Agency's experience it is highly likely that new emissions controls or strategies will be developed and deployed over this time, but we do not currently have the data to include those technologies in our analysis.

The Agency applied a constant, average cost per ton of \$15,000/ton to capture total costs associated with the NO_x emissions reductions achieved through unidentified controls. In addition, to explore how sensitive total costs were to the average cost per ton, the Agency employed alternative assumptions of \$10,000 per ton and \$20,000 per ton for the average cost. The average cost per ton is designed to capture total costs associated with emissions reductions from unidentified controls because the Agency expects that a portion of those total costs is likely at a value below the average cost per ton and a portion is likely at a value above the average cost per ton.

Senator Fischer:

- 1) When considering the appropriate level to set the ozone standard you agency "placed the most weight on human exposure studies" – at least according to the proposed rule. Isn't it true that only ONE of these studies – the Schelegle study – shows effects that may be considered adverse at levels below the current standard – which appears to show impact at 72 ppb. Aren't you concerned that other peer reviewed studies have called your strongest evidence into question?

Answer: The decision to set the level of the 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.

- 2) Are you familiar with the recent study coming out of NASA², which reports that the United States is importing ozone from China? Does the EPA – or anyone in the government – have a way to measure the amount of ozone we are importing from our competitors overseas? If we cannot measure the ozone we are importing from China – how can the EPA’s so-called exceptional events exclusion work to hold states harmless for this pollution originating from China?

Answer: EPA is familiar with the Verstraeten et al. (2015) paper which looked at contributions of Asian transport to ozone levels aloft over the Western U.S. Multiple EPA documents, including the Integrated Science Assessment associated with the 2015 ozone NAAQS revision, have also discussed how international transport of ozone and ozone precursors can influence ozone levels in the U.S., not just above the surface but also at the surface. While there are ways to estimate how much of the ozone measured at a given location originates from foreign emissions sources (e.g., air quality modeling), there is no way to directly measure how much of the ozone at a given surface monitor is from China.

As described in the EPA’s November 2015 proposed revisions to the “Treatment of Data Influenced by Exceptional Events” (the Exceptional Events Rule), to qualify for treatment under the Rule, a state would need to demonstrate that the transported foreign contribution meets the criteria of an exceptional event (e.g., clear causal relationship between the event and the monitored exceedance/violation, human activity unlikely to recur or a natural source, and not reasonably controllable or preventable). If the state demonstrates that the transported foreign emissions meet the requirements of Section 319 of the Clean Air Act (CAA) and the Exceptional Events Rule, then the affected air quality monitoring data could be excluded from design value calculations, which, in turn, could lead to regulatory relief from an initial area designation as nonattainment under the 2015 Ozone NAAQS (or any other future NAAQS). If the transported foreign emissions do not qualify for treatment under the Exceptional Events Rule and they influence concentrations in a nonattainment area, then the affected state may be able to use the international transport provisions provided under CAA section 179B, which relieves states from imposing control measures on emissions sources in the state’s jurisdiction beyond those necessary to address reasonably controllable emissions within the U.S. Finally the Administrator can determine that certain qualifying nonattainment areas are Rural Transport Areas (Section 182(h)), thus eliminating the need for states to develop an attainment plan. All of these CAA-authorized provisions have been used in the past for implementing ozone standards.

- 3) Does the EPA have the discretion under the Clean Air Act to take into account the issue of background ozone when setting the standard? Since the EPA has the discretion to consider the dilemma posed by background ozone – did the agency take background ozone issues into account when setting the ozone standard?

Answer: The Clean Air Act directs the EPA to set NAAQS at a level requisite to protect public health with an adequate margin of safety and to protect the public welfare from any known or anticipated adverse effects of air pollutants. Since it is a public health

standard, all ground-level ozone, including background ozone, is relevant to what that level should be, because people breathe it all.

However, Congress established requirements for implementing the health-based NAAQS standards that recognize issues like background ozone and interstate transport to ensure that states are not responsible for emissions they cannot reasonably control. The Clean Air Act contains provisions that can assist states in ensuring background ozone does not create additional control obligations as they continue their work to improve air quality. If a state provides an adequate assessment or demonstration, there are a few types of CAA-authorized relief they can legally invoke, which are described in the final ozone NAAQS and the implementation memorandum that accompanied it. As examples, an area may be able to rely upon the exceptional events provisions of the Act to exclude certain emissions data from consideration during the process of area designations under a revised NAAQS, which could impact whether an area is designated nonattainment. An area also may be able to rely on certain provisions of the Act addressing international emissions when making attainment demonstrations, which could limit their ultimate control requirements and any consequences for failing to attain by the area's attainment date. Finally, the Administrator can determine that certain qualifying nonattainment areas are Rural Transport Areas, thus eliminating the need for states to develop an attainment plan. All of these CAA-authorized provisions have been used in the past for implementing ozone standards.

Clean Power Plan

- 4) Nebraska operates under a statutory mandate to provide low-cost and reliable public power. A recent study conducted by the Platte Institute, a nonpartisan "think tank" in Nebraska, found that the Clean Power Plan would cost Nebraskans an additional \$3.5 billion for natural gas and renewable infrastructure, and raise residential electricity prices by 24 percent by 2020. Additionally, the Nebraska Department of Environmental Quality⁷ stated that the Agency has not accounted for the state's significant investment in its existing electric generating units to comply with federal air quality regulations, a cost also borne by ratepayers.

How can Nebraska continue meeting its statutory public power obligations while also complying with the rule?

Answer: The final Clean Power Plan sets strong but reasonable and achievable standards for power plants, the providing national consistency, accountability and fair goals for emissions reductions. The final Clean Power Plan provides guidelines for the development, submittal and implementation of state plans that establish standards of performance or other measures for affected power plants in order to implement the interim and final carbon dioxide CO₂ emission performance rates. The flexibility of the rule allows states to reduce costs to consumers, minimize stranded assets and spur private investments in renewable energy and energy efficiency technologies and businesses. States can tailor their plans to meet their respective energy, environmental and economic needs and goals, and those of their local communities.

There are various studies on the Clean Power Plan that reach different conclusions, and the EPA is not always aware of what assumptions underlie them. EPA's analysis shows that in 2030 the Clean Power Plan will achieve meaningful reductions in harmful carbon

pollution resulting in public health and climate benefits of \$34 to \$54 billion, far outweighing the costs of \$8.4 billion. With an all-of-the-above approach, the Clean Power Plan encourages the growing shift toward a more sustainable system that recognizes the importance of reducing carbon pollution while maintaining reliability and a vibrant economy. As discussed in Chapter 8 of the final Clean Power Plan (80 Fed. Reg. 64,874 et seq.) both the extensive flexibility built into the final Clean Power Plan and multiple reliability-focused tools provided to states will ensure the continued reliability of the electricity system. Chapter 8 includes a detailed discussion of reliability-focused tools, including the reliability safety valve.

- 5) According to the Nebraska Public Power District, which services 86 of Nebraska's 93 counties, the EPA failed to show an emission limitation which is achievable or adequately demonstrated in the state of Nebraska. NPPD also stated that achieving a 6 percent efficiency rate for existing coal plans is "virtually impossible," and that it lacks the transportation capacity to run its gas-fired generators at 70 percent statewide as mandated by the rule⁴.

Can you describe the calculations used when setting Nebraska's target reduction, particularly in relation to efficiency and utilization?

Answer: State goals are based on uniform emissions rates, which are premised on the three building blocks applied at the regional level as discussed in section VI of the preamble (<https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>). There are no source-specific technology or operating requirements for efficiency or capacity factor levels. The state goals reflect the uniform emission rates applied to the state's current (i.e., baseline) generation mix. That is, it reflects the historical fleet meeting the subcategory rates while operating at its historical generation level. This is discussed in detail in both section VII of the preamble and the CO₂ Emission Performance Rate and Goal Computation TSD (<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-36850>).

³ Comments of the Nebraska Department of Environmental Quality on *Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 79 Fed. Reg. 34830 (June 18, 2014).

⁴ Comments of the Nebraska Public Power District on *Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 79 Fed. Reg. 34830 (June 18, 2014).

Senator INHOFE. Thank you, Madam Director.

Before we start the clock here, let me make three unanimous consent requests to be entered into the record at this time. The first is the Harvard poll of Young Americans, aged 18 through 29, which was just completed. It found that young Americans are often unsupportive of government measures to prevent climate change that might harm the economy. Less than 30 percent of young adult Americans agreed with the statement in a poll that "government should do more to curb climate change, even at the expense of economic growth." Then it further quotes the poll, the Harvard University poll, "Not only are the newest voters less convinced of climate change. As a reality, they are also less likely to support government funding of climate change solutions."

The second one that I will ask unanimous consent to be in the record, this was a good one. This was Bloomberg, right after the visit of the Pope. And is it good, this good or bad direction for the church. They go through all these things. For example, the greatest thing that they are concerned about is suggesting the Catholic Church do more to harness the energy and compassion for women, 84 percent of the people believe that. But last in line, chastising those who deny the human connection to climate change, only 33 percent think that folks should be talking about that.

Last, and this was a good one, Gallup, because Gallup does this every year. They had a poll, and I can remember when climate change, at that time before they changed the wording and put global warming, it was about always in first or second place. Now of 15 concerns that people have in the most recent Gallup poll, the very last, number 15 is climate change.

So I ask unanimous consent that these three polls be made a part of the record.

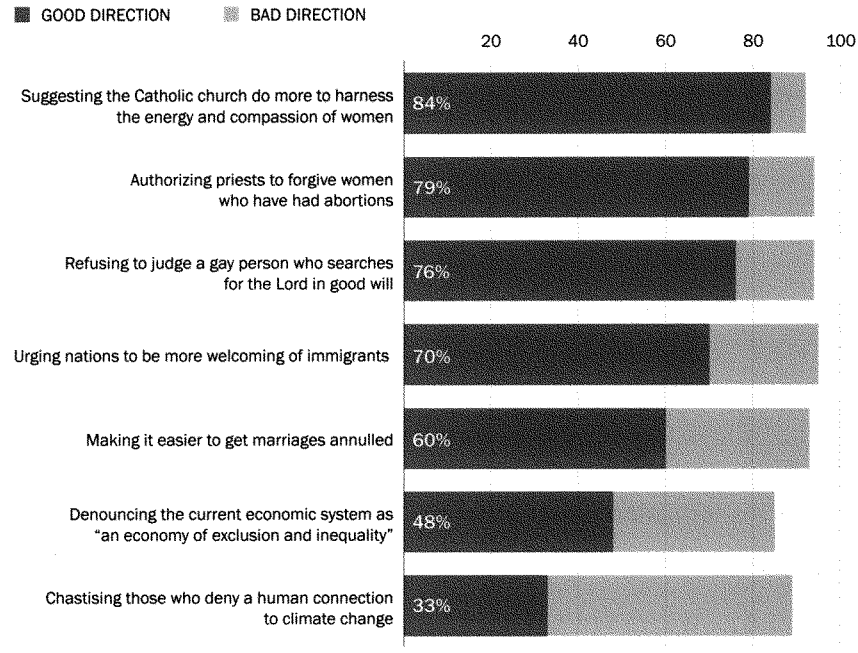
[The referenced information follows:]

Bloomberg poll – September 2015

Only 33% of Americans think the Pope should encourage the Catholic Church to speak out against climate change “deniers” and more than half think he should not.

Is this a good direction or bad direction for the church?

Responses from Bloomberg polling.



Gallup poll – March 12, 2015:

In a March 12, 2015 Gallup poll, climate change came in dead last of Americans concerns for national problems. Americans were more concerned with the economy, terrorism, size of government, and affordable energy.

	A great deal
	%
The availability and affordability of healthcare	54
The economy	53
The possibility of future terrorist attacks in the U.S.	51
The Social Security system	46
The size and power of the federal government	46
The way income and wealth are distributed in the U.S.	46
Hunger and homelessness	43
Crime and violence	43
Illegal immigration	39
Drug use	38
Unemployment	37
The quality of the environment	34
The availability and affordability of energy	28
Race relations	28
Climate change	25

Gallup poll – March 25, 2015:

In a March 25, 2015 Gallup poll, global warming came in dead last of environmental issues Americans are concerned about.

	% Great deal, 2014	% Great deal, 2015
Pollution of drinking water	60	55
Pollution of rivers, lakes and reservoirs	53	47
Air pollution	46	38
Extinction of plant and animal species	41	36
The loss of tropical rain forests	41	33
Global warming or climate change	34	32

A majority of Americans (62%) do not believe that global warming will pose a serious threat to their way of life in their lifetime.

Nearly half of Americans (42%) believe that the media exaggerates the seriousness of global warming.

Harvard poll of young Americans, age 18-29– April 2015

A recent Harvard poll found that “young Americans are often unsupportive of government measures to prevent climate change that might harm the economy.”

Less than 30% of young adult Americans agreed with the statement in a April 2015 poll that the “government should do more to curb climate change, even at the expense of economic growth.”

The Harvard Political Review drew the conclusion from its polling of young people in April 2015 that **“not only are the newest voters less convinced of climate changes as a reality; they are also less likely to support government funding of climate change solutions.”**

Senator INHOFE. Ms. McCabe, in June we heard from Commissioner Mike McKee from Utah about the challenges addressing background and transport ozone. This is something that has been a concern for a long time. I think one thing we can all agree on is, you can't control what comes into your State. Maybe what you generate yourself.

Now, what can a State do to control naturally occurring and trans-continental ozone, since your agency has a poor track record in gaining the exceptional events and rural transport? These exceptions were in the Clean Air Act and the Clean Air exemption, which I hasten to say that I was one of the original co-sponsors of the 1990 Clean Air Act exemptions. So I have a lot of pride in the successes that we have had, huge successes.

But what can a State do to control these things that fall into the category of exempt events and rural transport exceptions built into the Clean Air Act? What can they do? Is there anything they can do?

Ms. MCCABE. Senator, you are correct, the Clean Air Act does not hold States responsible for pollution that is not generated from sources within their borders. And you have mentioned exceptional events, that is one very clear tool that is in the Clean Air Act to make sure that we can work with the States to exclude data that is the result of exceptional events. In the last few years, we have worked hard with the States to improve and streamline the process to be able to get those events documented and approved. And we will continue to do that.

Senator INHOFE. So what you are saying is that in the event it is something that falls into this category that you are not going to have any kind of a punitive action against States who are unable to do something that falls into this category, is that correct?

Ms. MCCABE. That is correct.

Senator INHOFE. On the power plant rules, it is a little confusing on how we expect the States to submit their initial plans by a date certain, and we are talking about September 6th of 2016. Yet the formal State implementation deadline is 2018.

I would ask the question, why are you requiring an initial plan to be submitted by 2016 and is there any chance that in the event that 2016 comes up and a State is not complying, prior to the time that 2018 is here that there is going to be a deadline and there could be Federal action against that? Could that happen or is that the intent? Why are we having this initial 2016 deadline?

Ms. MCCABE. The way the final rule laid it out is that plans are due within 1 year. But we recognize that a lot of States have processes, not all of them, but many States have processes that will take longer than 1 year. So we set it up so that States would have the ability to ask for an extension of up to 2 years.

Senator INHOFE. And that could happen, based on their ability to do something that would be impossible to comply with?

Ms. MCCABE. Sure. So in order to ask for that extension, they submit an initial submittal in which they document three relative and straightforward things.

Senator INHOFE. I think that is a good thing to have in the record.

Now, under your watch, EPA has released several air regulations to address emissions for power plants. I want to read some of these. Four hundred 11 coal-fired power plants totaling 101,000 megawatts generation capacity will close by the end of 2016 as a result of the rules. Certainly Senator Capito is fully aware of that. The Mercury Rule will cause 55,000 megawatts of power to go off-line and another 46,000 megawatts will close down due to the Clean Power Plan. With additional pressure from the new ozone requirements, a third set of power plants will close.

Has the EPA conducted a cumulative impact analysis to determine the effect of all these rules cumulatively? We talk about that a lot. Have they?

Ms. MCCABE. We do.

Senator INHOFE. And who did that?

Ms. MCCABE. We do talk about it a lot. Respectfully, Senator, I don't accept your recitation of all of these, the choices that are made with respect to power plants all being the result of EPA's rules. There are many things that go into a power plant's decision about whether it is economical to continue running that facility. Undoubtedly, environmental rules are part of that, but there are many, many other factors.

Senator INHOFE. So you have not put together a cumulative study about the cumulative effect of these rules? An of these rules that the EPA is either projecting or has come out with or has already completed?

Ms. MCCABE. As part of our rulemaking, we do not do that. Although we take account of changes in the energy system and the energy mix. In each rule that we do, we keep up to date with EIA and FERC and other agencies that oversee the power supply.

Senator INHOFE. Thank you very much. I do think that we are going to be talking about the cumulative effect up here, even though the EPA may not see that as advisable.

Senator Boxer.

Senator BOXER. Thanks, Mr. Chairman. I would like to also put two polls into the record. The American Lung Association poll, taken 2 weeks ago, showing 73 percent support stronger ozone standards; the New York Times Stanford poll, 77 percent say the Federal Government should be doing a substantial amount to combat climate change. If I may do that, without objection, I hope?

Senator INHOFE. Without objection, so ordered.

[The referenced information follows:]

GREENBERG QUINLAN ROSNER RESEARCH

September 9, 2015


Overwhelming Support for Tougher Smog Standards Findings from a National Poll of Voters

To: American Lung Association

From: Missy Egelsky, Greenberg Quinlan Rosner Research

A new national survey of 871 registered voters¹ shows a public overwhelmingly in favor of stricter limits on smog generated by power plants, oil refineries, and other industrial facilities. Support is both broad and deep, with majorities of voters across partisan lines and in every region of the country who favor a proposal to update air pollution standards on smog.

At the outset, 73 percent of voters favor the plan to place stricter limits on smog-causing pollution, with just 25 percent who oppose the proposal. Nearly half of voters strongly support the proposal (46 percent). In fact, support is now even stronger than in November 2014, when 68 percent of voters said they favored the proposal.

 **Figure 1: Consistent and Strong Support for Stricter Limits on Smog**

	November 2014	August 2015
Strongly favor	45	46
Somewhat favor	23	25
Somewhat oppose	10	11
Strongly oppose	15	14
Don't know	6	2
Total favor	68	73
Total oppose	25	25

¹ These findings are based on a national survey of 871 registered voters reached via live telephone interviews on both landlines and cell phones. Conducted for the American Lung Association by Greenberg Quinlan Rosner Research, August 20-23, 2015. The margin of error for results is +/-3.32 percentage points at a 95 percent confidence interval.

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Key Findings

- **Voters express overwhelming support for stricter smog pollution standards.** Nearly three quarters of voters (73 percent) favor the Environmental Protection Agency updating standards to place stricter limits on the amount of smog that power plants, oil refineries and other industrial facilities can release; just 25 percent oppose the proposal. Strong support for the plan cuts across demographic lines, including majorities of Democrats, Independents, and Republicans, as well as both men and women, college and non-college educated voters, and more than 7-in-10 voters in every region of the country.²

■ Figure 2: Overwhelming Support for Stricter Limits on Smog

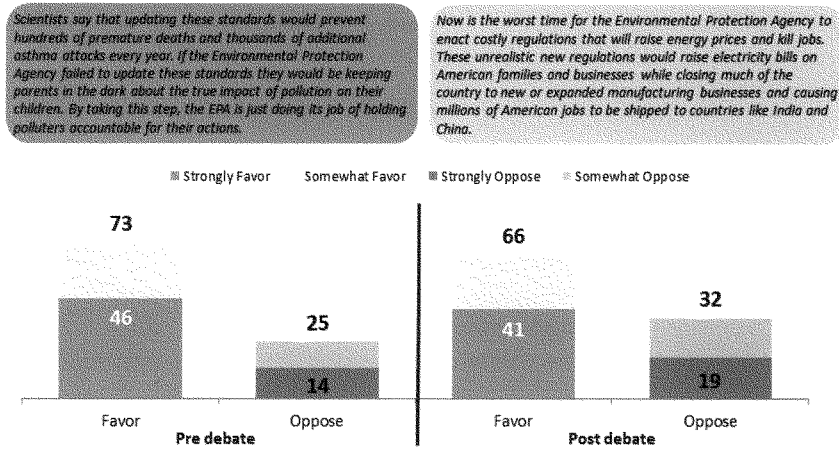
	% Favor	% Oppose
Total	73	25
Democrats	90	9
Independents	84	16
Republicans	52	45
Northeast	78	20
Central	72	26
South	71	26
West	71	27
Men	69	29
Women	76	22
College	72	25
Non-College	74	25

- **After hearing balanced messaging³ on both sides of the debate, support for stricter limits on smog remains strong.** Importantly, the proposal to set tougher limits on smog-causing pollution withstands a strong opposition message that includes negative consequences for jobs and energy costs. After hearing messages in both support and opposition of new standards, voters continue to favor the proposal to update standards by an overwhelming 2-1 margin, with 66 percent in favor and 32 percent opposed.

² Please see the appendix for full text of question.

³ Please see the appendix for full text of messages.

■ Figure 3: Support for smog limitations remains strong after balanced debate



Appendix A — Text of Description of Standards

As you may know, the EPA is considering an update to air pollution standards that would place stricter limits on the amount of smog that power plants, oil refineries and other industrial facilities can release. Do you favor or oppose the EPA setting stricter limits on smog?

Appendix B — Text of Messaging

Now let me read you two statements some people on both sides of the issue make.
(Statements were rotated)

Some people say: Scientists say that updating these standards would prevent hundreds of premature deaths and thousands of additional asthma attacks every year. If the EPA failed to update these standards they would be keeping parents in the dark about the true impact of pollution on their children. By taking this step, the EPA is just doing its job of holding polluters accountable for their actions.

Other people say: Now is the worst time for the EPA to enact costly regulations that will raise energy prices and kill jobs. These unrealistic new regulations would raise electricity bills on American families and business while closing much of the country to new or expanded manufacturing businesses and causing millions of American jobs to be shipped to countries like India and China.

Now that you've heard more about this issue let me ask you again, do you favor or oppose the EPA setting stricter limits on smog?

Senator BOXER. Thank you. I appreciate that, because we now have dueling polls in the record, and people can decide which one is right.

Senator INHOFE. The one from the American Lung Association.

Senator BOXER. The American Lung Association.

Senator INHOFE. Yes.

Senator BOXER. You like that?

Senator INHOFE. Oh, I like it very much, yes. But also I like the fact that the Gallup poll is recognized as the accepted poll, more than a particular group that is looking at the one issue.

Senator BOXER. Public support for the Clean Power Plan, and I know my colleague has named several colleagues and said several States are unhappy. I have heard and seen tremendous support in my State and other places for the Clean Power Plan. So Governors, attorneys general, mayors, even utilities, some of them support it. So what feedback has EPA gotten from stakeholders regarding that final Clean Power Plan?

Ms. MCCABE. Thank you, Senator Boxer. You are absolutely right, that there is certainly a range of views. We have been spending a lot of time talking with people either in formal settings or less formal settings, and a lot of time talking with States. I understand that there are a range of views. But for the most part, the State officials that we are talking with are starting to dig into thinking about how they are going to put their plans together.

Senator BOXER. And isn't one of the reasons that you have given them tremendous flexibility, isn't that correct?

Ms. MCCABE. Yes, we have.

Senator BOXER. Which I admire. Because one size does not fit all, is that correct?

Ms. MCCABE. That is correct.

Senator BOXER. Ms. McCabe, smog pollution has many health impacts, particularly for children and the elderly. I read that moving op-ed from one of my constituents, 13 years old. Can you describe the benefits of reducing smog pollution and the costs of not protecting people against smog pollution? Can you give me some numbers here on asthma and so on?

Ms. MCCABE. Sure. There are about 23 million people in this Country that have asthma, Senator, as I understand it. Six million of those are children, one in 12 children across the Country has asthma. That is particularly true in certain vulnerable populations. Children in Puerto Rico, for example, have quite a high rate of asthma.

Ozone pollution affects the respiratory system. It can exacerbate or bring on an asthma attack. It can cause other respiratory symptoms, even in healthy adults, especially when they are outdoors and exercising.

When we bring ozone levels down, we reduce asthma attacks, we reduce visits to the emergency room, we reduce missed school days, we reduce missed work days, we reduce the costs that are associated with it.

Senator BOXER. I am really glad you said that. Because I don't think a lot of my friends factor this benefit into their thinking, and I am very pleased that you have that documentation.

Ms. McCabe, over the 40-year history, has been enforcing the Clean Air Act. I have the list here of the benefits, and I am just going to tell you what they are. If these are misstated, would you please let me know?

Over the last 40 years, since that Clean Air Act, our national GDP has risen 207 percent. The total benefits of the Clean Air Act amount to more than 40 times the cost, 40 times the cost of regulation. For every dollar we spend, we get more than \$40 of benefits in return. That is from a 2010 speech that was made about the Clean Air Act. Do you agree with those numbers?

Ms. MCCABE. They sound right, Senator Boxer. I can't swear to the precise numbers.

Senator BOXER. OK. I am going to send this to you, and if you could respond.

In 2010 alone, this particular source has said reductions in fine particle pollution and ozone pollution achieved by the Clean Air Amendments of 1990 avoided more than 160,000 premature deaths, avoided 130,000 heart attacks, prevented millions of cases of respiratory problems, like acute bronchitis and asthma attacks, 86,000 hospital admissions, prevented 13 million lost work days, avoided 3.2 million lost school days due to respiratory illness and other diseases. The source was an EPA study, and this was presented by Lisa Jackson. So if I send this to you, could you see whether or not there has been any difference in that since that speech?

Ms. MCCABE. Absolutely.

Senator BOXER. Are you planning on doing another look back? Because that was 2010. I think it is time we take a look ahead. When are you going to do that? Do you know?

Ms. MCCABE. I don't have a specific plan for that, Senator.

Senator BOXER. Well, I hope you will consider it. I will close with this.

Ms. MCCABE.

[Remarks off microphone.]

Senator BOXER. The benefits are not thought about, really. And if you have a kid who is able to play sports and you don't have to drag him or her to the emergency room, et cetera, that is a moral benefit and a financial benefit. My view is that is EPA's job and it is our job here. That is why I keep stressing the health benefits, because I think they are overlooked. Thank you.

Senator INHOFE. Thank you, Senator Boxer. Senator Wicker?

Senator WICKER. Thank you very much.

I have a unanimous consent request, too, before we begin the questioning. The Center for Regulatory Solutions has issued a paper by Karen Kerrigan, Five Things You Should Know Before the Senate EPA Hearing on EPA's Ozone Proposal.

One of the things that the author mentions is about this Lung Association poll. They went back and recast the poll and asked an additional question about costs. Once costs were factored in, support for the EPA ozone proposal plunged. When asked if they would be willing to spend \$100 per year, roughly half of the support vanished. And when informed that the study actually estimated that stricter ozone standards would cost \$830 per year, a majority of voters opposed the EPA's plan outright.

Also, I would point out that a number of experts have weighed in that the additional proposed drop in ozone standards does not have any effect on asthma, as has been alleged here. Roger McClellan, past chair of the EPA Clean Air Scientific Advisory Committee, wrote this: "The EPA and the environmental lobby claim a stricter ozone standard is needed to reduce asthma cases. But these claims rely on a much higher ozone level from decades ago which we don't experience any more. Recent history does not support this claim connection. In fact, for well over a decade, asthma cases have increased by millions, while ozone concentrations have declined."

So Mr. Chairman, I ask for unanimous consent to insert this paper into the record also.

Senator INHOFE. Without objection, so ordered.

[The referenced information follows:]

The Center for Regulatory Solutions

September 29, 2015

Five Things You Should Know Before the Senate EPW Hearing on EPA's Ozone Proposal

By Karen Kerrigan

The Senate Environment and Public Works Committee is holding a hearing today about the Environmental Protection Agency's (EPA) proposal to dramatically tighten the federal ozone standard from 75 parts per billion (ppb) into the range of 65 to 70 ppb. Here are five things you need to know for the Senate hearing scheduled just days before the agency's expected announcement of the final rule before October 1st.

Local Representatives Across the Country Oppose a Tighter Ozone Standard

The Sierra Club released a letter last week attempting to show that 70 mayors support a lower ozone standard, but the signers to the letter, including mayors from Little Rock, Arkansas, and Elkhart, Indiana, believe that the current standard should be left in place.

Back in May, Elkhart Mayor Dick Moore had also asked the White House to instruct the EPA to "keep the current standards in place," as the agency's ozone proposal "will likely have unintended negative consequences," "undermine our efforts to create jobs," "discourage business growth and job creation," and impose "a burden we cannot afford."

The "support" shown in Sierra Club's letter for a stricter ozone standard pales in comparison to the overwhelming opposition to such a proposal. For example, the U.S. Conference of Mayors, the National Association of Counties, the National League of Cities, and the National Association of Regional Councils – which collectively represent 19,000 cities and mayors, 3,069 counties, and more than 500 regional councils – called on the EPA in March to retain the existing ozone standard:

"Given these financial and administrative burdens on local governments, we urge EPA to delay issuing new NAAQS [National Ambient Air Quality Standards] for ozone until the 2008 ozone standard is fully implemented."

Majority of Voters Oppose Lowering the Ozone Standard

Earlier this month, the American Lung Association (ALA) released polling data that purportedly indicated “overwhelming support” for a tighter ozone standard. To arrive at such a conclusion, however, the ALA poll minimized the issue of cost and avoided a discussion of cost specifics completely – despite the bipartisan chorus of concerns from state and local officials, businesses, and labor groups over the potential costs of a stricter standard.

With costs in mind, the Center for Regulatory Solutions (CRS), a project of the Small Business and Entrepreneurship Council, recast ALA’s poll – but with one extra question to determine how much voters are willing to pay for a stricter ozone standard. Once costs were factored in, support for the EPA’s ozone proposal plunged: CRS polling shows that 72 percent of the public are unwilling to pay more than \$100 a year. Roughly half that number – 36 percent – said they would not be willing to pay anything at all. Therefore, when informed about a study that estimated that a stricter ozone standard would cost \$830 every year per household, a majority of voters opposed the EPA’s plan outright.

Health Experts Weigh In: Ozone Does Not Cause Asthma

Even though the EPA claims that a lower ozone standard is needed in order to reduce the incidence of asthma, experts in the field, along with many state air-quality regulators, including officials from South Dakota, Indiana, Ohio, and Texas, have spoken out against drawing a connection between ozone and asthma in this way.

Indiana Department of Environmental Management Commissioner Tom Easterly said:

“The significant improvement in measured ozone air quality over the past 40 years should have drastically reduced both the number and severity of asthma attacks ... But we can find no evidence that such a reduction has occurred.”

Researchers at the Texas Commission on Environmental Quality wrote:

“We agree that respiratory effects can occur at the high ozone concentrations that were measured in the 1980s and 1990s. The pertinent question is whether lowering the ozone standard from 75 ppb to 70 or 65 ppb will result in a measurable reduction in these effects. In this short review, we consider some important concerns with EPA’s conclusions about the health effects of ambient ozone concentrations. We conclude that EPA has not demonstrated that public health will measurably improve by decreasing the level of the ozone standard.”

Roger McClellan, past chair of the EPA’s Clean Air Scientific Advisory committee, wrote:

“The EPA and the environmental lobby claim a stricter ozone standard is needed to reduce asthma cases. But these claims rely on much higher ozone levels from decades ago. Recent history does not support this claimed connection. In fact, for well over a decade, asthma cases have increased by millions while ozone concentrations have declined.”

Professor Tony Cox of the Colorado School of Public Health wrote:

“Fortunately, there is abundant historical data on ozone levels and asthma levels in U.S. cities and counties over the past 20 years, many of which have made great strides in reducing ambient levels of ozone by complying with existing regulations. It is easy to check whether adverse outcomes, from mortality rates to asthma rates, have decreased more where ozone levels have been reduced more. They have not. Even relatively large reductions in ozone, by 20% or more, have not been found to cause detectable reductions in deaths and illnesses from cardiovascular and respiratory illnesses, contrary to the EPA’s model-based predictions.”

Bipartisan Concern for the Ozone Proposal is Gaining Steam

- Senators John Thune (R-S.D.) and Joe Manchin (D-W.Va.), along with Congressmen Pete Olson (R-Tex.) and Congressman Latta, introduced the “Clean Air, Strong Economies Act” (CASE Act), which would prohibit EPA from promulgating new standards until 85 percent of areas in “non-attainment” with the current 75 ppb standard come into compliance. It would also require the EPA Administrator to “take into consideration feasibility and cost” when establishing new standards.” Introducing the bill, Senator Manchin said, “We need the EPA and our federal government to work with us as allies, not as adversaries who continually implement onerous regulations and move the goalposts before we even have a chance to comply.”
- Senators Claire McCaskill (D-Mo.) and Orrin Hatch (R-Utah) introduced a bill last week that would allow local areas to enter into “Early Action Compact Plans” with EPA to take early action to prevent a non-attainment designation. Senator Hatch introduced the bill out of concern “that the EPA will simply set an air quality standard for ozone that is unattainable for many Western states.” Senator McCaskill said the bill “provides a pragmatic and reasonable path forward to help guard Missourians’ health, and Missourians’ livelihoods, while not accepting the false choices of jobs or the environment.”
- Senator Michael Bennet (D-Colo.) warned that EPA’s proposal “doesn’t make any sense” and is “not going to work.”
- Congressman Bob Latta (R-Ohio), Congressman Gene Green (D-Tex.), and 135 of their colleagues in the House, sent EPA a bipartisan letter, calling its proposed ozone standard “costly,” “burdensome,” and “technologically difficult,” and asking EPA Administrator McCarthy to retain the current standard of 75 ppb.

Rumors of Political Interference

After EPA submitted their proposal to the Office of Management and Bureau (OMB) recommending a standard of 70 ppb in August, there have been reports of political interference by the White House Council on Environmental Quality and others pressuring the EPA to set the standard at 68 ppb. Concerned, Congressman Lamar Smith (R-Tex.), Chairman of the House Science, Space and Technology Committee, sent a letter to White House Chief of Staff Denis McDonough asking for communications between the Office of Management and Bureau and Budget or the Executive Office of the President and

outside groups. In the letter, Congressman Smith wrote, “[i]t is even more troubling that whatever scientific analyses used by EPA to determine its final recommended limit are being disregarded by White House officials for purely political reasons.”

Bottom Line

The consensus across the political spectrum, across local governments, and across diverse economic sectors is that the proposed federal ozone standard simply goes too far – and the EPA should keep the existing 75 ppb standard in place until that environmental benchmark is fully implemented.

Karen Kerrigan is president & CEO of the Small Business & Entrepreneurship Council (SBE Council). The Center for Regulatory Solutions is a project of the Council.

Senator WICKER. Ms. McCabe, you indicated an unprecedented outreach effort was made to the stakeholders. I can tell you that folks at the Mississippi Department of Environmental Quality didn't notice this unprecedented outreach. They say there were a couple of internet-based seminars, there were some rarely held discussions concerning State-specific information. And they complain that you used regional data to impose requirements on the States, and did not equip them with actually the tools to do this.

So let me ask you, what do you say, can you give me specific examples of how EPA worked with States? Because my State director says you didn't. Also, why did you use the larger geographic regional data rather than State-specific data? Because the requirement is going to be placed on the States, not on some regional government.

Ms. MCCABE. Senator, thank you for the question. I am very sorry to hear the reports from your DEQ, because it is really hard for me to imagine how any State can say that we did not make every opportunity available to work with them. I personally have been involved in dozens and dozens of conversations and meetings with State officials. And we have invited, any State that wanted to spend time with us has been afforded that time. So it is distressing that it would be reported that way.

In your second point, let me make clear that in the Clean Power Plan, we use both regional and State-specific data to develop the final goals for the States. We looked broadly at the regions across the Country, especially the three interconnects, because that is the way the power system operates, that is the grid on which the utilities operate. Resources, as we know, our electricity resources are not confined within State borders. They flow across and among and between States.

So in looking to see what opportunities were available to utilities to manage their assets, and indeed, many utilities operate in many States, that is the way it made sense to look at that data, because that is the way the system works.

When we got to developing each State's specific target under the Clean Power Plan, that is when we took each State's specific mix of sources into account and applied our nationally consistent emission rates for coal and gas plants to each State's particular mix of sources to get a tailored target for each State.

Senator WICKER. Well, let me just say, my 5 minutes is expired. This is so complicated that it really doesn't lend itself to a series of 5-minute question and answer periods. I am going to submit several questions for the record to you, outlining the objections of these people with a clean air agenda in the State of Mississippi, who feel basically you have given them something that cannot work for our State.

Also, I have questions about one specific power association in Mississippi that simply would have to double, double its budget to comply with the solar powered requirements that are being put on them. I will submit questions for the record. I think we have a regulation coming at States and consumers that is going to absolutely explode the cost of power and be unachievable for people who are trying to work with your agency to do the right thing.

Senator INHOFE. Thank you, Senator Wicker. Senator Carper.

Senator CARPER. Thanks, Mr. Chairman.

Mr. Chairman, I would like to ask unanimous consent that an opening statement be submitted by the record by me.

Senator INHOFE. Without objection, so ordered.

[The prepared statement of Senator Carper was not received at time of print.]

Senator CARPER. Thanks so much.

I am going to ask a favor, Ms. McCabe. Welcome, you have a tough job. We appreciate your willingness to take it on. I am going to ask as a favor if you would submit to Senator Wicker just an overview of the kind of outreach that the EPA has done to the folks in Mississippi. I think that would be interesting and enlightening and appropriate. If you would do that, that would be great.

Ms. MCCABE. I would be happy to do that.

Senator CARPER. I think we all want a couple of things. We want cleaner air. We want to have a stronger economy. And we wanted to involve the States and frankly, the business community, utilities in this, in an appropriate, thoughtful way. The other thing I would add is I think most of us want to do this in a way that where we treat our neighbors the way we would want to be treated. That is especially important for Delaware and some others who live around us on the east coast.

Let me start with a review of the basics of the ozone rules. I understand that in laymen's terms, this rule is all about using the latest science to determine what levels of ozone in the air makes us sick. Is that correct, yes or no?

Ms. MCCABE. That is correct.

Senator CARPER. All right. Over the years, as science has advanced, we have learned more and more about the human body, leading us to understand that lower levels of ozone in our air make us sicker than we once thought. Is that correct, yes or no?

Ms. MCCABE. That is correct, Senator.

Senator CARPER. The EPA only lowers the ozone health standard if the agency determines that the current standard is not protecting public health based on the best science available, is that correct, yes or no?

Ms. MCCABE. That is correct, Senator.

Senator CARPER. And once a new standard is in place, the EPA allows, as I understand, each State to find the most economical way to meet the new standard, is that correct, yes or no?

Ms. MCCABE. That is correct.

Senator CARPER. In the past years, EPA has tightened the ozone standard from time to time, and our economy has continued to grow, is that correct, yes or no?

Ms. MCCABE. That is correct.

Senator CARPER. And finally, it is my understanding that if EPA picks a standard at the top of the range proposed, that is 70 parts per billion, there are only an estimated nine counties in the Country, outside of California, that will be in non-attainment by 2025. I am going to say that again. My understanding is if EPA picks a standard near the top end of the range, 70 parts per billion, there would be only an estimated nine counties in the Country outside of California that will be in non-attainment by 2025. Is that correct, yes or no?

Ms. McCABE. That is what our modeling shows, Senator, that is correct.

Senator CARPER. All right. I would say to my colleagues, do you all know how many counties there are in America? I didn't know. I asked my staff to find it out. There are over 3,000. In fact, there are over 3,100 counties in America. And what the science would say to us, if a standard is picked, 70 parts per billion, by 2025, there are going to be nine counties out of 3,000 across America that are going to be in non-attainment. Nine counties out of 3,000. Think about that. Doesn't seem like a whole lot to me.

We only have three counties in Delaware. And when I was Governor, we were in non-attainment. Not because of our pollution but because of pollution by States to the west of us. I could have shut down the State of Delaware. I could have shut our economy down when I was Governor. We would still be in non-attainment, because 90 percent of our air pollution came from other places.

And we had to breathe it. We are at the end of America's tailpipe, us, Maryland, New York and New Jersey, Pennsylvania. It is not fair. Talk about the Golden Rule, treat other people the way you wanted to be treated, that is not the way we ought to treat anybody, including folks in our part of the Country.

In my opening remarks, which I have entered for the record, I talked about how an estimated 90 percent of our pollution comes from out of State. Can you just take a minute or two, Ms. McCabe, and talk to us about how ozone pollution can travel across State boundaries and impact the air quality of places like my home, the first State, of Delaware, and our national parks that may have few or any emitters of ozone?

Ms. McCABE. Yes, Senator, that is certainly true. We have seen that over the years. Air pollution doesn't stop at State borders. And the northeast corridor, as you have alluded to, is a classic area where downwind States receive pollution from upwind States.

The Clean Air Act has a good neighbor provision in it to make sure that upwind States take steps to reduce the pollution that they are sending downwind that are causing or contributing to air pollution violations and poorer health downwind.

Senator CARPER. Can you take just a second and talk to us about the impact of international ozone pollution and whether it should impact the decisionmaking on the ozone health standard, please?

Ms. McCABE. The ozone health standard is exactly as you described it, Senator. It is an information and message to the American people what level of ozone is safe for public health in this Country. That is a separate issue from the steps that everybody needs to take in order to get us there.

And to the extent that there is internationally transported air pollution, the United States is involved in research and activities with other countries to try to make sure that those countries clean-up their air as well. But there is much that we contribute to our own poor air quality in this Country, and steps that we can take in a cost-effective and reasonable way over time to bring those levels down and improve public health.

Senator CARPER. All right, thanks so much. Thanks, Mr. Chairman.

Senator INHOFE. Thanks, Senator Carper. Senator Fischer?

Senator FISCHER. Thank you, Mr. Chairman, and thank you, Ms. McCabe, for being here today.

Under the final Clean Power Plan rule, Nebraska faces a 40 percent reduction in its carbon emissions rate. That is a significant increase from the proposal that we saw where it was 26 percent reduction. So now Nebraska is categorized as one of the top biggest losers under this rule.

You know we are the only 100 percent public power State in this Country. So when I say that Nebraska is one of the ten biggest losers, what I really am saying is that the citizens of Nebraska are ranked among the ten biggest losers under this rule. It is not some big corporation out there. It is not some big company out there. It is the citizens of Nebraska who are going to pay for this. As a result, within hours after the final rule's release, our AG in the State said that the overreach of the Federal Government will have serious consequences by driving up electrical costs for Nebraskans all across the State.

There seems to be an underlying theme of uncertainty and confusion among my State officials and the local stakeholders as well regarding this rule. Senator Wicker alluded to that in Mississippi. We face that in Nebraska. Providing consumers with affordable and reliable energy requires long-term investment plans.

But the EPA has indicated it could be 3 months between when the rule was released in early August to when it appears in the Federal Register. Our director of the energy department in Nebraska feels that this really is unacceptable. If it is the same rule that has been released in August, what is taking so long to publish it in the Federal Register? I share that frustration.

Can you shed some light on why it is taking us so long to get that published?

Ms. MCCABE. Yes, thank you, Senator. Before I do, I will respond to the earlier question about Mississippi. But my staff reminded me that we held two specific calls with the State of Mississippi—

Senator FISCHER. Don't use my time for Mississippi.

Ms. MCCABE. OK. My apologies. In terms of getting a rule to the Federal Register, there is a standard set of steps that happens. The rule was signed on August 3d. We submitted it to the Federal Register on September 4th. That is actually quicker than a number of other major rules from EPA. And we put every effort into getting that submitted just as quickly as possible.

Senator FISCHER. And the language will be the same?

Ms. MCCABE. There is a process of doing corrections like grammar and typos and that sort of thing, but yes. The substance of the rule is the same.

We then work with the Federal Register office as they get the materials ready to publish and we have been doing that back and forth in a very routine but from our perspective expeditious manner.

Senator FISCHER. According to Nebraska Public Power District, which services 86 of our 93 counties in the State, the EPA failed to show an emission limitation which is achievable or adequately demonstrated in the State of Nebraska. NPPD also stated that achieving a 6 percent efficiency rate for existing coal plants is virtually impossible and it lacks the transportation capacity to run its

gas-fired generators at 70 percent statewide as mandated by that rule.

Can you describe some of the calculations that were used when you set Nebraska's target reduction, particularly in relation to efficiency and utilization?

Ms. MCCABE. First I want to make clear that there are absolutely no mandates in the rule. There is no requirement that any utility do anything specific, nor any State, other than meet an overall target.

Ms. FISCHER. Nebraska is now 40 percent reduction.

Ms. MCCABE. Every State has an emission reduction target, Senator. Every State has a goal that in 2030 is lower than the historical emissions in 2012. Those rates vary depending on the mix of sources in those States. The way the final rule works is that every coal plant across the Country has the identical emission rate. This is the way the New Source Performance Standards are traditionally set. And every gas plant has the same rate.

But within the flexibility allowed under Section 111(d), and within the flexibility that the interstate grid allows, utilities will be able to trade and average and use resources that they have access to in order to achieve those reductions.

Senator FISCHER. You say there is no mandate. Doesn't the Clean Power Plan call for increasing Nebraska's renewable generation from 4 percent to 11 percent by 2030?

Ms. MCCABE. There are projections that we use in part based on information that we get from other agencies that study these things that make projections about increases in renewable energy across the Country. But there is no specific requirement that any specific State or utility use a specific percentage of renewable energy.

Senator FISCHER. So in our States, specifically in Nebraska, we can continue to build our own balanced portfolio with renewables at the pace that the people of the State choose? It doesn't have to be increased from 4 percent to 11 percent?

Ms. MCCABE. We believe that States will be able to design plans, working with their utilities, to achieve that 2030 goal and the interim goals in ways that accommodate the kind of planning that they want to do.

Senator FISCHER. But the goal itself of 11 percent is mandated by the EPA, is that correct?

Ms. MCCABE. There is no goal of 11 percent renewables for the State of Nebraska.

Senator FISCHER. I see my time is up. I have some questions on ozone which I would like to submit to you for the record. Because we did have a hearing in Nebraska on that.

Again, I have some concerns about very sparsely populated counties in my State that will be affected. When we look at the Ranking Member's State of California, I understand her concerns there because of the non-attainment and the exclusion and waivers that are provided to California over, I believe it is a 20-year period. Because those standards cannot be met. Yet we have very sparsely populated counties in Nebraska with less than one person per mile where we are going to have to be meeting those. So we will submit those for the record.

Thank you, Mr. Chair.

Senator INHOFE. Thank you, Senator Fischer. Senator Markey?

Senator MARKEY. Thank you, Mr. Chairman, very much.

The Clean Air Act is one of the most effective public health laws in American history. The original 1963 version initiated by President Kennedy and signed into law by President Johnson empowered the United States Public Health Service to address air pollution, 6 years before the creation of the EPA.

The Clean Air Act's success comes from its requirement to use science to protect public health and welfare. The Clean Power Plan and the new ozone standard are both cases of the EPA acting to protect public health and welfare from proven hazards.

The scientific community has shown the connection between ozone and respiratory health problems for decades, and has called for an ozone standard of 60 parts per billion since 2006. Ground level ozone and smog threaten the health of kids and other cardiovascular-compromised people. It even has negative impacts on healthy adults and agriculture and wildlife. Each time science advisory boards have been asked to review the latest research on ozone, they find a growing body of evidence of its health hazards.

Then we have the Clean Power plan, first big step toward reducing U.S. carbon pollution. The plan will help protect the public from the health impacts of climate change and other pollutants like sulfur dioxide and nitrogen oxides that will also be reduced as a result.

Earlier this summer, the U.K.'s top medical journal, the Lancet, published a major health study that identified climate change as the most significant global health threat of the 21st century and offered up a number of prescriptions of ways to reduce carbon pollution and shift to cleaner sources of energy. The Clean Power Plan is one way that we can follow the doctor's orders. The science is clear about the ozone and it is clear about carbon pollution. These crucial Clean Air Act measures we are discussing today will promote health and stimulate our economy.

Before the 2008 ozone standard was finalized, we heard that the standard would cripple the economy. But this was just not true in Massachusetts. Both air quality and GDP increased, even as the ozone standard tightened. I am expecting that this trend will continue in Massachusetts as we work to meet the new ozone standard.

Do you believe that other States will also experience economic growth while solving their pollution problems?

Ms. MCCABE. Senator, we have seen nothing to suggest that improving air quality doesn't improve the economy as it improves public health.

Senator MARKEY. I look forward to the long-awaited ozone standard that will improve life and productivity of families impacted by respiratory health problems. I am concerned, however, that the standard will stop short of providing the required productions. A 70 parts per billion standard would still lead to hundreds of thousands of asthma attacks and thousands of preventable deaths each year.

Once the ozone rule is finalized, do you believe that an adequate margin of safety which is required by the Clean Air Act will be achieved?

Ms. MCCABE. That is our job, Senator, to recommend and for the Administrator to make a decision that protects the public health with an adequate margin of safety. I don't believe she would sign a rule if she didn't feel that is what she was signing.

Senator MARKEY. Many studies have shown that low-income individuals have the least ability to protect themselves from the effects of climate change, including air quality, sea level rise, flooding, water scarcity, food prices and changing economies. The Clean Air Plan does include programs for low-income families. Do you think the plan will have a net benefit for those poor families?

Ms. MCCABE. We think both the Clean Power Plan and the ozone standard are particularly important to protect vulnerable, low-income and other populations that are particularly affected by these issues.

Senator MARKEY. And does the history of the Clean Air Act environmental regulation show that it does lead to innovation, that new emissions technologies emerge that solve the problem at a much less expensive cost that had been anticipated, even by the experts?

Ms. MCCABE. That is absolutely true, Senator.

Senator MARKEY. So we have seen that in the automotive sector, we have seen it in other sectors and I think it is highly likely to continue in this sector as well. And to those who wonder whether or not a goal which is not established for Nebraska or any other State might be met, let's just look at the facts. Just in America in 2015 and 2016, we are going to double the total amount of solar. It is going from 20,000 to 40,000 total installed solar capacity. And why is that? It is because the price is collapsing.

The same thing is true on the wind side. We are adding 28,000 new megawatts of wind just in this 2-year period. And between wind and solar, by the end of 2016, we are going to have 133,000 megawatts of wind and solar installed in the United States, largely because of the advance in the technology and the collapse in price.

So I think people should be optimistic that each of the States, with the great flexibility you are providing, will be able to meet the standard.

Thank you, Mr. Chairman.

Senator INHOFE. Thank you, Senator Markey. Senator Capito?

Senator CAPITO. Thank you, Mr. Chairman, and thank you, Administrator McCabe, for coming. I understand you were in West Virginia yesterday.

Ms. MCCABE. I was.

Senator CAPITO. At the Greenbrier. So I know you found it great.

Ms. MCCABE. It is absolutely beautiful there, Senator.

Senator CAPITO. Thank you. We have had a lot of talk about costs and benefits. I noticed the gentleman's comments earlier when he talked about the cost. He didn't talk about the costs to the lower and middle income of the price of energy. According to studies under this plan, in our State of West Virginia, the cost of energy will rise somewhere between 17 and 22 percent. Right now, we have 430,000 low and middle income people in the State of West Virginia whose pay, take-home pay is \$1,900 a month, they spend 17 percent of their take-home money to pay for their energy.

When this goes up, say, 20 percent, this is going to have a cost to them, a human cost to them.

What kind of transparency has EPA brought forward to folks who live in areas like my areas that will be deeply affect? What kind of transparency have you actually stated is going to result in the rise in their energy costs on a daily basis?

Ms. MCCABE. Well, Senator, of course there are a lot of numbers out there that people are citing.

Senator CAPITO. I am asking for EPA numbers.

Ms. MCCABE. I know, but the numbers that you cited are not EPA numbers. I don't know where they come from.

Senator CAPITO. Right. That is why I am asking you.

Ms. MCCABE. We did an analysis as we do for every major rule where we looked at expected impacts on both the price of energy and on bills. Because what matters is how much you write that check for every month. And our analysis is all laid out in our regulatory impact analysis.

Senator CAPITO. What did you find? Just generally.

Ms. MCCABE. We found that by 2030, the average cost of a person's electric bill would go down by about 7 percent, and that is as a result of increased energy efficiency that we see coming into the system. So even though electricity prices might go up a little bit, bills will actually go down. That is what our analysis shows.

Senator CAPITO. This study is from NERA, respected consultant and analysis firm. I am sure you are familiar with them.

Ms. MCCABE. Yes.

Senator CAPITO. And I would take exception to if it goes up a little bit, 20 percent, when you are bringing home \$1,900, is a significant amount.

My next question is, on your first rule, from the time of the first rule to the second rule, 22 States saw an increase, some a major increase. West Virginia went from 20 percent reduction to 37 percent reduction. Why was that decision made to make it the hardest hit of those regions that are the energy exporters, such as West Virginia, Wyoming, Kentucky, North Dakota?

Ms. MCCABE. So this is all laid out in our discussion, Senator. It is all based on the data that we had and that we received during the public comment period and on the design of the rule, which follows the way the Clean Air Act tell us to do these rules, which is to set expectations on industry that are uniform across the Country.

So all the information that we had showed the different things that utilities were doing to reduce carbon. And so we set an expected emission rate for coal plants across the Country.

Senator CAPITO. Yes, which no coal plant in my State meets that target. Not one.

Ms. MCCABE. But they are not required to meet them tomorrow. They are required to meet them overall, over the whole system, and by 2030. Using the types of approaches that many States are already using and utilities are already using, that are bringing those CO₂ emissions down, we feel confident that every State will be able to achieve that.

Senator CAPITO. Let me ask you this. If the State implementation plan is not put forward you said they get a 2-year extension.

What happens in 2016 if they put forward their idea of a State implementation plan? Is there an implementation of a Federal implementation plan after 2018 if the State doesn't submit?

Ms. McCABE. What the Clean Air Act says is that if a State doesn't put forward a plan under 111(d), then EPA should step in and do a Federal plan.

Senator CAPITO. So that would be in 2018 or 2016?

Ms. McCABE. It would be when a State fails to meet a requirement under the rule.

Senator CAPITO. So if you don't submit a State plan in 2016, are you subjected to the Federal implementation plan?

Ms. McCABE. If a State submits this initial plan that the rule asks for and a request for a 2-year extension, that is complying with what the rule requires.

Senator CAPITO. I know you are well aware that there are many States that are considering, many Governors are considering not even submitting a State implementation plan at all. So are you saying then if they don't submit any kind of implementation plan in 2016, they would be subject to the Federal implementation plan?

Ms. McCABE. Following the requirements of the Clean Air Act?

Senator CAPITO. Yes.

Ms. McCABE. If a State doesn't submit a plan as required, that would trigger the obligation for EPA to do a Federal plan.

Senator CAPITO. One last question on the ozone rule. We talk about non-attainment. I am happy to report we are in attainment in the State of West Virginia. But we are very rural, as the gentlelady from Nebraska was talking about. So if we reach a point where we are not in attainment, we have no offsets to really offer to get ourselves into attainment, where maybe a more congested area or a larger metropolitan area, larger manufacturing area would have some offsets to offer.

Is this something you are considering, how to help rural areas meet these standards when they are fully implemented?

Ms. McCABE. Congress actually thought about this, and they included something called the Rural Transport Area in the Clean Air Act for areas that truly are rural and where the emissions creating the high ozone are not from within their county, they can be designated a Rural Transport Area. That greatly reduces the expectations on that area.

Senator CAPITO. So of the nine counties which are not in compliance, or let's say, of the other counties that are in compliance, not the nine that Senator Carper was talking about, are they considered, some of them, Rural Transport Areas?

Ms. McCABE. We don't actually, I believe, have any areas that are so designated now. I actually don't think that we would be looking at extremely rural areas in West Virginia under a future ozone standard that is in this range. But the nine counties that are mentioned, we don't currently have any Rural Transport Areas, but that tool would be available in the event that a county that meets those criteria had ozone levels higher than whatever the standard is.

Senator CAPITO. OK, so just so I understand, is the reason that designation is not used is because all of rural America is meeting the ozone standard that is set right now? Is that the reason?

Ms. MCCABE. There are no counties, most rural counties meet the ozone standard. Let me put it that way. Most rural counties meet the ozone standard. And for any that could be considered rural, depending on how you identify that, if they are part of an ozone non-attainment area, it is because it makes sense for them to be part of that, that there are emissions that are contributing to local air quality.

Senator CAPITO. OK, I think I get that. Thank you.

Senator INHOFE. Thank you, Senator Capito. Senator Merkley?

Senator MERKLEY. Thank you, Mr. Chair.

Thank you for your testimony. The report yesterday, the news report was that based on the commitments that nations are making the Paris conference in December? The temperature of the planet would still increase by more than 6 degrees Fahrenheit, so essentially above the target that has been around, the 3.6 degrees Fahrenheit or 2 degrees Celsius target. Is it the opinion of the U.S. Government that 6 degrees would be catastrophic?

Ms. MCCABE. I think that there is a lot of concern about temperature rise at those levels, Senator.

Senator MERKLEY. And much of the conversation has been about avoiding that, one has to control both carbon dioxide as an air pollutant and methane as an air pollutant. I applaud the Administration for trying to control fugitive methane as a byproduct of drilling for natural gas.

But essentially, the conversation has been, if you are going to reduce enough, you have to leave a lot of the identified fossil fuel reserves that have been identified in the world in the ground, leave it in the ground, roughly an estimate of 80 percent of those. Does the Administration share that perspective?

Ms. MCCABE. I am not familiar enough with that kind of calculation, Senator, to confirm that or not.

Senator MERKLEY. Well, I say that as a framework because essentially the Clean Power Plan is a subset of our Nation's efforts to control carbon dioxide, because of this broader framework of planetary stewardship, which is so important.

Yesterday Shell announced that they were discontinuing their plans for drilling in the Arctic. I would like to thank all those who advocated that drilling the Arctic makes little sense. Is there a possibility that the United States will use its chairmanship of the Arctic Council now to encourage the Arctic Council nations to leave the Arctic off limits?

Ms. MCCABE. Senator, I really can't speak to the position on the Arctic Council. But I would be happy to take that question back and get you a response on it.

Senator MERKLEY. I would like to encourage the Administration to do that. There is a window of opportunity here that is important as part of this worldwide perspective, leave it in the ground. You can do all you want in terms of the Clean Power Plan. But if one is opening up additional fossil fuel reserves to being exploited and burned, it is counterproductive and the pieces don't fit together.

One of the conversations has been that the United States shouldn't necessarily act if it is acting alone. Are we seeing more engagement by other nations around the world coming to the table?

Ms. McCABE. Yes, we are. In fact, when the Clean Power Plan was proposed, it was the talk of the circles internationally. There was a lot of attention on the U.S. stepping forward and putting some concrete action on the table that we think has been very, very helpful in those international discussions.

Senator MERKLEY. I was noting that a lot of times people say, well, China is not doing anything. But China has committed to deploying as much renewable energy in the next 15 years equal to all the electricity generated by the United States currently, which is sizable. I was struck by the numbers. Their goal is to go from 33 gigawatts of solar this year to 70 gigawatts 2 years from now, and to go from about a little over 100 gigawatts of wind energy now to 150 gigawatts 2 years from now. Does this exceed the rate of expansion of the solar and wind that is occurring in the United States?

Ms. McCABE. Gosh, I am not sure. But it is significant growth, and very welcome to see the Chinese commit to this.

Senator MERKLEY. They have also announced that they are launching a cap and trade system nationally in 2017. Specifically, they had proceeded to do seven pilot projects in cap and trade, sub-national regional projects. And they are taking experience from that, the last of those was launched in 2014. So they have seven projects on which to draw information to launch this national cap and trade system.

So they are planning to use markets the same way we used markets to control sulfur dioxide successfully. Are there any insights in this for the United States?

Ms. McCABE. That is a very welcome announcement from them. They have been looking at this and come forward with this plan and we are very encouraged by it.

Senator MERKLEY. It has been commented now that every major carbon producer has put forward a plan except for India. India announced that it is going to submit a plan on October 1st emphasizing renewables. Do you have any advance information you would like to share with us about what India is going to announce?

Ms. McCABE. I don't, actually.

Senator MERKLEY. OK. Well, we will look forward to that. I think it is impressive how many nations have now under this voluntary framework, we had this shift from trying to go from an international treaty in which there were mandatory reductions to asking each nation to put their best foot forward. It seems like nation after nation is saying that yes, as part of the global community, we have to take on a significant role in global stewardship.

Ms. McCABE. It is very encouraging, and I think you are right, that there is that sense that people are taking responsibility for this and realizing that we have to take responsibility.

Senator MERKLEY. It is in that context that the U.S. should not only do its part but be a leader in the stewardship of the planet and basically saving us from ourselves. Thank you so much for your role in that.

Ms. McCABE. Thank you, Senator.

Senator INHOFE. I am going to make an observation, of course, I would welcome Senator Boxer to make one too, in fairness. Right now there is a hearing going on that we are missing in the Armed

Services Committee. The whole hearing is about how China, what they are doing to us in cybersecurity, how they haven't kept their word on any of this stuff, and now we are lauding the virtues of China, who is making all these commitments on what they are going to do. It is kind of interesting. What do you think, Senator Boxer?

Senator BOXER. Well, I don't trust China. On the other hand, that is not my statement. On the other hand, the people on your side of the aisle have said, do nothing until China pledges to do something. And China pledges to do something and you are the same old Johnny One Note here.

So the bottom line is, I don't trust China and I don't trust them with the safety of the world and the planet. Therefore it is imperative that regardless of what China says or does that America, as the Pope said, not walk away from our responsibility. I am frankly shocked that the other side of the aisle thinks that we should give up our leadership until China and India step up. That has been your call.

So now they say they are going to step up and now you say, well, we can believe them. Whether they step up or not, it's God's planet, we have to protect it. I am tired of ducking behind the skirts of China. Let's step out and show what America is made of, which is true grit and the can-do attitude.

I just want to close with saying this. My State, which has taken the lead, is going gangbusters here. We are doing absolutely great. And I am very excited about it. I think if you cling to the dirty old energies of the past, you are doomed in this world. Because the people are not going to support dirty energy when they see what it is doing to the planet, to their lungs, to their families, to the economy.

I wish that we could get out from under China's skirts. I am glad they said what they did. I don't trust them. I would rather they said they were going to do something. They said they were going to build a high-speed rail and they did it. So maybe they will do it.

But whether they do it or not, America should lead.

Senator INHOFE. OK, we should all trust China.

Senator BOXER. Don't change my words. I said don't trust them. Regardless of whether they are going to do this, we should take the lead. It is our moral responsibility.

Senator INHOFE. Senator Merkley?

Senator MERKLEY. Thank you, Mr. Chairman. The point has often been made here in this room that the U.S. acting alone will not have an impact or save us from global warming gases and global warming that results from that. This isn't about trusting any one particular nation, but it is about observing that nations are making, other nations are making substantial commitments. It isn't just into the future, we can see what has happened the last few years. China has had a dramatic increase in its renewable energy in the past few years. So it is on this trajectory that it has currently laid out.

They also have enormous internal motivation to continue, because of the tremendous air pollution in that Country. They are worried about the citizens rebelling against the government be-

cause of that air pollution. It is a national security issue for them and an internal security issue as well.

So not only is it becoming very economical in wind and solar as compared to fossil, but there is also a huge stability issue that is driving the government's motivation.

Senator INHOFE. Thank you, Senator Merkley. I will know better next time.

[Laughter.]

Senator INHOFE. Senator Sullivan?

Senator SULLIVAN. Thank you, Mr. Chairman. I just feel a little bit compelled, I wasn't going to mention anything, but since Senator Merkley brought it up, there are a lot of Senators who don't think that was a good day yesterday in Alaska with what Shell decided to do. I think our regulatory system is largely to blame. Seven years, \$7 billion to try to drill one well in America. The EPA certainly shares some of the blame. We are going to undermine our energy security, certainly undermine jobs that people need in this Country.

But one issue that doesn't come up, we are going to undermine the environmental protection in the Arctic. What are we doing? We are driving investment to Russia, to China, to countries that don't have high standards like we do. SO I think when we are celebrating this, we need to actually have a better understanding of the environment. I certainly will oppose any maneuver by the Arctic Council to try to limit responsible resource development in the Arctic.

Administrator McCabe, I want to talk, Senator Carper mentioned the importance of clean air, a strong economy, I agree with that. But I also think we should all be very concerned about making sure your agency follows the directions of Congress, follows the rule of law. Do you think that any statutory, or any action that you take from a regulatory standpoint has to be based in statute?

Ms. McCABE. Our regulatory actions are based in our statutory authorities, Senator.

Senator SULLIVAN. Good. I am glad you think that.

In terms of the Clean Air Act, you have actually lost a couple of pretty important Supreme Court cases recently, the Utility Air Regulator case, the Michigan v. EPA case. In the Utility Air Regulator case, the Supreme Court stated, "When an agency claims to discover a long-extant statute and unheralded power to regulate a significant portion of the American economy, we typically greet that announcement with a measure of skepticism." They went on to say "The EPA's interpretation is unreasonable because it would bring about an enormous transformative expansion of the EPA's regulatory authority without clear congressional authorization."

Do you think you have clear congressional authorization to undertake this rule?

Ms. McCABE. We do, and our authority has been supported by the Supreme Court finding that carbon pollution endangers public health.

Senator SULLIVAN. So when you were getting ready to issue the WOTUS rule, I asked the Administrator if we could get the legal opinion that EPA undertook to show that you have that authority. She never granted it, never gave it to me. I think that is a clear

aspect of our oversight, she refused to do it. Do you have a legal opinion? I am not talking about your rule, but a detailed legal opinion that shows that you have the legal authority to issue the Clean Power rule?

Ms. MCCABE. We do, Senator.

Senator SULLIVAN. Can we get that?

Ms. MCCABE. We have a legal memorandum.

Senator SULLIVAN. Can we get that?

Ms. MCCABE. Absolutely. It is available right now, today, it has been available since August 3d in the docket. We will be happy to provide it to you.

Senator SULLIVAN. Great. In the Michigan v. EPA case, the Supreme Court ruled against EPA's Mercury Rules 3 years after their issuance. As such, many power plants had already shuttered or retrofitted because of the rule's requirement.

Earlier this year, the Wall Street Journal ran an editorial suggesting that this might be a tactic of the EPA. Interestingly, Administrator McCarthy kind of insinuated that as well. She was on a TV show and she stated on the eve of this ruling, "We think we are going to win because we did a great job." This is EPA v. Michigan, which you actually lost. "But even if we don't win, it was 3 years ago we issued the rule. Most of them are already in compliance, investments have already been made."

Do you think that is an arrogant way to approach the rule of law in our oversight, saying, hey, even if we lose, we are going to win because we forced this on Americans anyway?

Ms. MCCABE. Senator, this agency acts within its understanding of the law.

Senator SULLIVAN. What do you think of her statement? What do you think of that statement? Do you think that is an arrogant approach to our oversight or the American people? We lost, but you know what? The American people and businesses are going to have to abide by it anyway?

Ms. MCCABE. If I can clarify, Senator, the decision from the Supreme Court spoke to one very narrow aspect of the Mercury and Air Toxics Rule.

Senator SULLIVAN. No, I am talking about her statement.

Ms. MCCABE. I understand that, and I am not going to comment about the Administrator. I didn't hear her say it, I don't know what she was intending to say.

Senator SULLIVAN. Mr. Chairman, I think that is an incredibly arrogant way to look at the rule of law, to look at our oversight of this committee. I think it is something we need to look at, because it is a flagrant disregard for the rule of law.

Let me ask one final question. You talk about outreach. Thirty-one States, including Alaska, are suing EPA on the WOTUS rule. You are losing right now in Federal court. There has been an injunction saying it is like that you are going to lose. Thirty-two States have opposed the Clean Power Plan.

Does this disturb you? You talk about all the outreach that you do, and yet the majority of the States in the United States consistently oppose what the EPA tries to do from a regulatory standpoint. Does it disturb you that 31 States are suing on WOTUS, 32 are opposing the Clean Power plan, and 16 have already requested

a regulatory stay but they can't do it because you haven't issued the rule? Does that disturb you or the Administrator?

Ms. MCCABE. Senator, I can't speak to the WOTUS rule, because that is not within my area.

Senator SULLIVAN. But you are a senior EPA administrator.

Ms. MCCABE. I am. And our desire always is to work with States. There will always be disagreements among States. Even within the States that have taken action to litigate against the rule or have indicated that they intend to, we are having very constructive discussions with those States.

I think it is oversimplifying to say that X number of States oppose the Clean Power Plan.

Senator SULLIVAN. When the States sue you, that is usually a pretty good indication they don't like the rule.

Ms. MCCABE. I don't think 32 States have sued us.

Senator SULLIVAN. They can't sue you yet on this one, because you haven't issued the rule.

Ms. MCCABE. And attorneys general are taking certain positions, Governors are taking certain positions. But the vast majority of the people that I talk to understand, they appreciate the adjustments that we made in the final rule that were directly responsive to the concerns that they raised to us, like providing more time for States to get their plans, and providing more time for utilities to accomplish these goals.

Senator SULLIVAN. Thank you, Mr. Chairman. I do think it is a big issue, whether it is the arrogance that the Administrator shows by saying that, hey, even if we lose, we win, because the American people are stuck with it anyway. I think it is a really big issue that we need to look at to not allow for agencies, even when they lose in court, in the Supreme Court, to still force a rule down the American people's throat and have the Administrator essentially say that is part of her strategy, in public. I think it is outrageous.

Senator INHOFE. Thank you, Senator Sullivan.

Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Chairman.

During this hearing, my colleagues have mentioned this report prepared for the National Association of Manufacturers that claimed that a standard of 65 parts per billion could cost as much as \$140 billion per year. EPA had estimated that it would cost a fraction of what NAM estimates, less than 12 percent.

The economic consulting firm SYNAPSE recently analyzed the NAM report and found that, "grossly overstates compliance costs, due to major flaws, math errors and unfounded assumptions. Among other things, NAM significantly inflated the emissions reductions needed to meet the 65 parts per billion standard through a series of unfounded and skewed assumptions. These assumptions and other flaws led NAM to overstate compliance costs by more than 700 percent."

That is the document that my colleagues are relying on in this hearing. I ask unanimous consent that the debunking industry claims report be entered into the record.

Senator INHOFE. Without objection.

[The referenced information follows:]

Most Republicans Say They Back Climate Action, Poll Finds

By CORAL DAVENPORT and MARJORIE CONNELLYJAN. 30, 2015

Photo



A view of the Capitol dome from the Capitol Power Plant, a coal-burning plant in Washington. Americans are less likely to vote for candidates who question or deny the science of human-caused global warming, a poll found. Credit: Jim Lo Scalzo/European

WASHINGTON — An overwhelming majority of the American public, including half of Republicans, support government action to curb global warming, according to a poll conducted by The New York Times, Stanford University and the nonpartisan environmental research group Resources for the Future.

In a finding that could have implications for the 2016 presidential campaign, the poll also found that two-thirds of Americans said they were more likely to vote for political candidates who campaign on fighting climate change. They were less likely to vote for candidates who questioned or denied the science that determined that humans caused global warming.

Among Republicans, 48 percent say they are more likely to vote for a candidate who supports fighting climate change, a result that Jon A. Krosnick, a professor of political science at [Stanford University](#) and an author of the survey, called “the most powerful

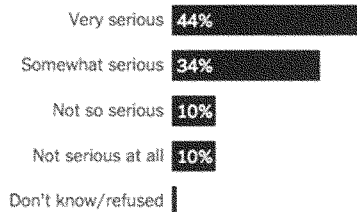
finding” in the poll. Many Republican candidates question the science of climate change or do not publicly address the issue.

GRAPHIC

Global Warming: What Should Be Done?

This nationwide survey asked people for their views on whether global warming will be beneficial or detrimental, about how the president and Congress have responded to it, and what they believe government should do about it.

If nothing is done to reduce global warming in the future, how serious of a problem do you think it will be for the United States?



OPEN GRAPHIC

Nonetheless, 47 percent of Republicans still said they believed that policies designed to curb global warming would hurt the economy.

Although the poll found that climate change was not a top issue in determining a person's vote, a candidate's position on climate change influences how a person will vote. For example, 67 percent of respondents, including 48 percent of Republicans and 72 percent of independents, said they were less likely to vote for a candidate who said that human-caused climate change is a hoax.

The results came as climate change was emerging as a source of debate in the coming presidential campaign.

In 2012, all the Republican presidential candidates but one — Jon M. Huntsman Jr. — questioned or denied the science that determined that humans caused global warming, and opposed policies to curb greenhouse gas emissions. But over the past year, President Obama has proposed a series of [Environmental Protection Agency](#) regulations intended to reduce carbon pollution from coal-fired power plants, which Republicans in Congress [have attacked](#) as a “war on coal.”

But those positions appear to be out of step with the majority of the electorate.

The poll found that 83 percent of Americans, including 61 percent of Republicans and 86 percent of independents, say that if nothing is done to reduce emissions, global warming will be a very or somewhat serious problem in the future.

But substantial differences remain between the two parties on the issue.

Democrats are much more likely than Republicans or independents to say that the issue of global warming is important to them. Among Democrats, 63 percent said the issue was very or extremely important to them personally. In contrast, 40 percent of independents and only 18 percent of Republicans said the same.

And while the poll found that 74 percent of Americans said that the federal government should be doing a substantial amount to combat climate change, the support was greatest among Democrats and independents. Ninety-one percent of Democrats, 78 percent of independents and 51 percent of Republicans said the government should be fighting climate change.

The nationwide telephone poll was conducted Jan. 7 to 22 with 1,006 adults and has a margin of sampling error of plus or minus 4 percentage points.

Over all, the number of Americans who believe that climate change is caused by human activity is growing. In a [2011 Stanford University poll](#), 72 percent of people thought climate change was caused at least in part by human activities. That grew to 81 percent in the latest poll. By party, 88 percent of Democrats, 83 percent of independents and 71 percent of Republicans said that climate change was caused at least in part by human activities.

A majority of Americans — 71 percent — expect that they will be personally hurt by climate change, although to different degrees.

“Some people think they’ll be really devastated; some people think they’ll be inconvenienced,” Mr. Krosnick said.

Aliza Strauss, a Republican homemaker in Teaneck, N.J., said in a follow-up interview that climate change had affected her personally and she was concerned about the effect of climate change in coming years. “A tree fell on my house during [Hurricane Sandy](#), and in the future, it might be worse,” she said. “The stronger storms and the flooding will erode the coastline, and that is a big concern for me.”

Jason Becker, a self-identified independent and stay-at-home father in Ocoee, Fla., said that although climate change was not his top concern, a candidate who questioned

“I don’t think it’s the No. 1 hot issue in the world,” he said. “There are some other things that should take precedent, like the ISIS issue,” he said, referring to the [Islamic State militants](#).

But he said of climate change: “If someone feels it’s a hoax, they are denying the evidence out there. Many arguments can be made on both sides of the fence. But to just ignore it completely indicates a close-minded individual, and I don’t want a close-minded individual in a seat of political power.”

Political analysts say the problem for many Republicans is how to carve out a position on climate change that does not turn off voters like Mr. Becker, but that also does not alienate powerful conservative campaign donors. In particular, advocacy groups funded by the billionaire brothers Charles G. and David H. Koch have vowed to ensure that Republican candidates who support climate change action will lose in primary elections.

As a result, many Republicans have begun responding to questions about climate change by saying “I’m not a scientist” or some variant, as a way to avoid taking a definite position.

The poll found that that vague position might well help Republican candidates in primary contests, particularly among conservative voters. The poll found that 27 percent of Americans were more likely to vote for a candidate who took that position, and 44 percent less likely. But among those who support the Tea Party, 49 percent said they would be more likely to vote for a candidate who said “I’m not a scientist” or a variant.

“It recruits more Tea Partyers than it repels,” Mr. Krosnick said.

A pledge to fight climate change appears to have less attraction for older voters. The poll found that older Americans were slightly less inclined to support a candidate who calls for action to reduce global warming and similarly less negative toward a candidate who rejects the premise of global warming.

“Global warming hasn’t much importance to me,” said William Werner, 73, a retired sales manager in San Antonio. “It is not man-made in my opinion because there have been cycles forever, and we can’t do much about that.”

He added, “If you’re speaking about voting for someone in this country who says they can take actions that will affect global warming, I don’t believe it, because we are just not that big a polluter compared to other countries.”

Coral Davenport reported from Washington, and Marjorie Connelly from New York. Marina Stefan contributed reporting from New York.

A version of this article appears in print on January 31, 2015, on page A1 of the New York edition with the headline: Half in G.O.P. Say They Back Climate Action. [Order Reprints](#) [Today's Paper](#) [Subscribe](#)

Senator WHITEHOUSE. Industry has a long history of muddling the science and manufacturing false data and exaggerating regulatory costs whenever the development of a new public health standard emerges. It is a standard industry game plan. We have seen this with climate change denial, we have seen it with efforts to address acid rain. We have seen it with efforts to cut toxic pollutants, such as mercury, and we have seen it with efforts to reduce smog. I am sorry that the National Association of Manufacturers has associated itself with this unfortunate history and this particular report.

Ms. McCabe, you have decades of experience working on Clean Air Act regulations. What is the track record of industry's past claims about the cost of health standards adopted under the Clean Air Act?

Ms. MCCABE. I would say, Senator, that we have often heard on the eve of a regulatory change that there would be significant economic impacts, and over time of course, we have seen that has not been true. Air quality has improved, public health has improved and the economy has also improved.

Senator WHITEHOUSE. Industry frequently talks about the costs of a rule. And when they measure the rule, they talk exclusively about the cost to themselves, the cost to polluters of meeting the public health standards, while they ignore the costs of not meeting the health standards that everybody else has to pay for. They ignore the public benefit and only the cost.

Now, EPA estimates the economic benefits from reducing premature deaths, asthma attacks, heart attacks and missed school days as high as \$42.1 billion a year in 2025, significantly outweighing the costs. Does this NAM report quantify any, any of the societal benefits from updating the standard?

Ms. MCCABE. I don't believe it does. I think it focuses entirely on costs.

Senator WHITEHOUSE. Do you agree that we should actually look at both sides of the ledger, the costs and the benefits together, in evaluating the merits of a rule?

Ms. MCCABE. Absolutely, we should.

In fact, if you were an accountant and if you looked at only one side of the ledger and made a report on it, you would probably end up going to jail, wouldn't you?

Ms. MCCABE. Me personally?

Senator WHITEHOUSE. No, the accountant who reported only one side of the ledger.

Ms. MCCABE. That would probably not be a good way to do accounting.

Senator WHITEHOUSE. And yet is the way that industry constantly behaves in this hearing room.

We are a downwind State, Ms. McCabe. It is our oceans that are acidifying because of carbon dioxide. It is our coasts that are threatened by worsened storms. It is our fisheries that are moving away in order to seek the shelter of cooler waters to the north. It is our air that is affected by the ozone.

Rhode Island from time to time has bad air days on a perfectly nice summer day, where elderly people and infants and people with breathing difficulties are advised to stay indoors. Don't go outside

and play football, don't go to the beach, stay indoors, so that people in other States, upwind of us, can continue to pollute.

There is zero concern from the other side of the aisle about what any of that is costing. It is really astounding to me. Stage right of this hearing room, every time, every regulation, every member, always with industry, always against the environment. And I wish it would come to an end. We are really in a better place if we can work together to address real problems rather than pretend they don't exist.

Senator INHOFE. Thank you, Senator Whitehouse. Senator Barrasso?

Senator BARRASSO. Thank you, Mr. Chairman, and it does seem, looking at a map of the places in non-attainment, that it is California where a lot of that area is in non-attainment. So if the Senator from Rhode Island states that things are moving from west to east, we can see the source of significant amounts of the problems.

Senator WHITEHOUSE. That is actually not correct.

Senator BARRASSO. Well, there are significant amounts of California that are not in attainment, if you look at a map that I looked at a few minutes ago.

Senator WHITEHOUSE. But if you look at what is coming over Rhode Island—

Senator INHOFE. Senator Whitehouse, we are not going to interrupt each other.

Senator WHITEHOUSE. I am sorry, but when he mentioned me specifically I thought it gave me a right to respond.

Senator INHOFE. Senator Barrasso.

Senator BARRASSO. Thank you, Mr. Chairman.

Ms. McCabe, I want to followup with some lines of questioning that I had with you on February 11th at the hearing on the President's Clean Power Plan before this committee. I had asked you about the EPA's claiming of co-benefits of reduction, sort of the double-counting that I believe is going on at the EPA. I asked if the EPA was double-counting health benefits, because it sure seems that way to me, in terms of reductions in particulate matter, since other EPA air rules claim the same reductions in particulate matter, claim the same health benefits.

My point was, you can only reduce the dust once and accrue the health benefits of that reduction once, not over and over again to justify different rules. You stated that you were not double-counting, and you say we are very careful in all our regulations to make sure that we don't do this.

Yet when you take a look at the EPA's own documents, you State that you are counting co-benefits of reducing the same PM 2.5 in other rules before a 111(d) rule for existing power plants was even released. EPA stated in its regulatory impact analysis for the proposed rule for existing power plants that it was possible that the benefits estimated in this RIA, the regulatory impact analysis, may account for the same air quality improvements as estimated in the illustrative NAAQS regulatory impact analysis. The same air quality improvements.

That is what the EPA is saying, that the same air quality improvements from previous regulatory impact analyses are being counted again. To me that means double-counting.

So do you still stand by your testimony in front of this committee and reject your own agency's statement about double-counting the same co-benefits and reductions of air pollutants like particulate matter?

Ms. MCCABE. Well, Senator, I am not sure exactly what you are referring to. But I assure you again that when we do each regulatory impact analysis, we acknowledge the effects of previous rules. But the benefits that we associate with each regulatory action are the benefits that accrue entirely and exclusively because of that regulatory action. They may then be additive, on top of prior rules that have come before.

Senator BARRASSO. That is not what the documentation said that was sent to me. This sounds like Volkswagen accounting. I think government ought to be held to a much better standard than what we are seeing coming from this agency and this Administration.

According to the Wyoming Department of Environmental Quality, the EPA designated all of one of the counties in Wyoming, Sublet County, portions of Lincoln and Sweetwater Counties, as ozone non-attainment areas in 2012. Judge Gary Moore, President of the National Association of Regional Councils, testified at a June 3d hearing, said "Sublet County, Wyoming serves as an example of how the new standard," he is referring to the new ozone standard, "could impact economic development activities."

He goes through Sublet County, the number of residents that live there, all of the public land that is involved, a county highly dependent on oil and gas development, mining activities. "And if the ozone standard is tightened further," he says, "Sublet County will likely be classified as fully in non-attainment, severe restrictions on industrial development which will limit jobs in the community."

So under your new ozone rule, it is likely that more counties in Wyoming, more counties around the Country will be in non-attainment, including the counties that have not yet achieved the previous level for ozone. So given the high cost in terms of jobs, regulatory burdens on struggling counties, the significant detrimental health impacts to people who lose their jobs, chronically unemployed, under what rationale do you believe you should be moving the goalpost on counties that have not yet even met the current standard?

Ms. MCCABE. Well, Senator, there is a lot in that question. I will try to answer a number of those issues.

In Sublet County, there are increasing levels of ozone there that are occurring that are affecting the public health there. So that prompts the EPA to look at that county and work with the State there in order to address those issues. I want to make clear that under any new ozone standard, decisions about which counties do and don't attain will be made based on air quality, some of which hasn't happened yet, it will be based on future air quality, 2014 through 2016.

So looking at historic levels is not a predictor of which counties will and won't be in non-attainment. I can tell you that with Wyoming in particular, we are working very closely with Wyoming on the emissions related to the oil and gas activities. Wyoming is a leader in terms of its State programs to encourage and require the companies there to conduct their activities in a way that is safe

and that minimizes air emissions in a cost-effective and very positive way.

Senator BARRASSO. Since you bring up the State, in a February 11th hearing, this will be my final question, Mr. Chairman, I asked of you if the States had the same access to crafting the Clean Power Plan rules as the environmental groups do, given the headlines about the NRDC's involvement in crafting your rules in the EPA. You stated "I speak with States all the time, they have very good access." Well, you didn't really answer the question if the States were getting the same or better access than the environmental groups.

So States are going to disagree with you, you say you talk to States all the time and they have access. Our own Department of Environmental Quality came and testified about what is happening. He says, "In the air programs alone, there have been dozens of new rules in the regulation of air quality. Therefore, EPA relies heavily on the states to carry out these initiatives. We are the boots on the ground that ensures the Nation's priority is cleaning up the air, protecting human health is achieved. But State resources are being stretched even more, as EPA continues to propose regulations at their current pace, they must consider the ability of States to meet this demand."

That doesn't to me sound like States are really getting heard in the process as you develop rules and work with the environmental extremist groups to develop those rules.

Ms. McCABE. Senator, we work with all groups, and they provide their input to us. We write the rules that we think are appropriate. I assure you that in my job, the States are my co-regulators, are our co-regulators. We take their input extremely seriously, as together we implement the National Clean Air Act.

Senator BARRASSO. Thank you, Mr. Chairman.

Senator INHOFE. Thank you, Senator Barrasso. Senator Gillibrand.

Senator GILLIBRAND. Thank you, Mr. Chairman.

It is regrettable that this committee is meeting again to debate the Obama administration's efforts to address climate change and protect the air we breathe from harmful pollution, including smog. Just last week, Pope Francis called on us in Congress to be courageous in protecting our environment and protecting the most vulnerable among us.

It is often the most vulnerable who suffer the effects of poor air quality the most, children, the elderly and people with illnesses and disabilities. According to the most recent statistics, 7.9 percent of children in New York, approximately 315,000, live with asthma. The total cost of asthma hospitalizations in New York is \$660 million. That is just New York.

When talking about the cost of action, we must also talk about the cost of inaction, which is often borne by those who can least afford to pay. Protecting our environment and growing our economy is not a zero sum game. We should stop treating it as such. In transitioning to a clean energy economy, we can unlock the potential for innovation and create new, sustainable jobs.

In New York, we are seeing the benefits already through the participation of the Regional Greenhouse Gas Initiative, or RGGI. By

participating in this market-based program, New York has reduced its carbon emissions from power plants by 45 percent since 2005. At the same time, New York's economy is growing. Our employment is the highest it has been at more than 9 million jobs.

Can you discuss the costs to the economy in terms of paying for natural disasters, damage to infrastructure, and increased resiliency measures if we fail to reduce our carbon emissions?

Ms. MCCABE. Yes, I can, Senator. In fact, EPA in the spring, late spring or summer, put out a report exactly on that issue called the SERA report, which looked at a number of different metrics, and looked at the cost to our economy and to our society for infrastructure issues in the future and water quality issues in the future, and sort of compared how much more it would cost if we didn't take action on climate change.

So on a number of different metrics, it is very clear and documented. We would be glad to provide you a copy if you haven't seen it.

Senator GILLIBRAND. Thank you. And who are the most vulnerable to experiencing the effects of ozone pollution, if we fail to act?

Ms. MCCABE. In terms of ozone pollution, those who are the most vulnerable are children, the elderly and those whose respiratory systems are already compromised through some kind of respiratory disease.

Senator GILLIBRAND. Thank you, Mr. Chairman.

Senator INHOFE. Thank you, Senator Gillibrand.

And thank you very much, Ms. McCabe, for your participation. We are adjourned.

[Whereupon, at 11:38 a.m., the hearing was adjourned.]

