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EPA'S GREENHOUSE GAS REGULATIONS AND THEIR EFFECT ON AMERICAN JOBS

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

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CONTENTS

	Page
Hon. Ed Whitfield, a Representative in Congress from the Commonwealth of Kentucky, opening statement	1
Prepared statement	3
Hon. Bobby L. Rush, a Representative in Congress from the State of Illinois, opening statement	4
Prepared statement	5
Hon. Fred Upton, a Representative in Congress from the State of Michigan, opening statement	6
Prepared statement	7
Hon. Joe Barton, a Representative in Congress from the State of Texas, prepared statement	8
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement	9
Hon. John D. Dingell, a Representative in Congress from the State of Michigan, prepared statement	143
Hon. Cory Gardner, a Representative in Congress from the State of Colorado, prepared statement	145

WITNESSES

Mike Carey, President, Ohio Coal Association	15
Prepared statement	17
Paul N. Cicio, President, Industrial Energy Consumers of America	28
Prepared statement	30
Hugh A. Joyce, President, James River Air Conditioning Company, Inc.	34
Prepared statement	36
Forrest McConnell, National Automobile Dealers Association, and President, McConnell Honda and Acura	40
Prepared statement	42
W. David Montgomery, Vice President, Charles River Association	52
Prepared statement	54
Answers to submitted questions	156
Dan W. Reicher, Executive Director, Steyer-Taylor Center for Energy Policy and Finance, Stanford University; Professor, Stanford Law School; and Lecturer, Stanford Graduate School of Business	80
Prepared statement	83
Gina A. McCarthy, Assistant Administrator, Office of Air and Radiation, United States Environmental Protection Agency	119
Prepared statement	122

SUBMITTED MATERIAL

Letter of March 1, 2011, from Mr. Waxman to Mr. Whitfield	146
Letter of January 10, 2011, from American Iron and Steel Institute to Hon. Darrell Issa	

EPA'S GREENHOUSE GAS REGULATIONS AND THEIR EFFECT ON AMERICAN JOBS

TUESDAY, MARCH 1, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND POWER,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 1:04 p.m., in room 2322 of the Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Members present: Representatives Whitfield, Shimkus, Walden, Terry, Burgess, Bilbray, Scalise, McMorris Rodgers, Olson, McKinley, Gardner, Pompeo, Griffith, Barton, Upton (ex officio), Rush, Inslee, Markey, Green, and Waxman (ex officio).

Staff present: Gary Andres, Staff Director; Jim Barnette, General Counsel; Michael Beckerman, Deputy Staff Director; Sean Bonyun, Deputy Communications Director; Maryam Brown, Chief Counsel, Energy and Power; Cory Hicks, Policy Coordinator, Energy and Power; Ben Lieberman, Counsel, Energy and Power; Gib Mullan, Chief Counsel, CMT; Mary Neumayr, Counsel, Oversight/Energy; Katie Novaria, Legislative Clerk; Peter Spencer, Professional Staff Member, Oversight; Jeff Baran, Democratic Senior Counsel; Greg Dotson, Democratic Energy and Environment Staff Director; Caitlin Haberman, Democratic Policy Analyst; and Alexandra Teitz, Democratic Senior Counsel, Environment and Energy.

OPENING STATEMENT OF HON. ED WHITFIELD, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. WHITFIELD. I call this hearing to order this afternoon. Today's hearing is entitled "EPA's Greenhouse Gas Regulations and Their Effect on American Jobs."

Certainly, one of the major issues facing the American people today is getting the economy stimulated, creating jobs and one of the reasons all of us or at least many of us are very much concerned about the activities of the EPA at this particular time is that they have a queue of about 30 regulations that they are working on at EPA. We have great concerns about these regulations, recognizing that all of us are committed to protecting the environment but there is no question that many of these regulations are having a dramatic impact on job creation and I certainly recognize that there are different philosophies on the way we precede.

The Obama Administration has placed great emphasis on green energy. As a matter of fact, our energy policy today has been sim-

plified to the point where fossil fuel is bad and green energy is good.

OK, thank you very much. I am sorry for the inconvenience there. For those who heard me, I am sorry you are going to have to listen to me again for a few minutes.

Today's hearing is entitled, "EPA's Greenhouse Gas Regulations and Their Effect on American Jobs." The American people are primarily interested in stimulating their economy today and creating jobs. One of the concerns that many of us on this side of the aisle have as well as others on the other side of the aisle is that the long list of regulations being considered at EPA today, we have a very real concern that they are going to have a significant impact on our ability to create jobs. I might also say that the energy debate in America today has been summed up in about six words and this is where we are, fossil fuels are bad and green energy is good. And I think most of us recognize that it is a lot more complicated than that and we and certainly I recognize that in order to meet our increased demands just on the electricity side we are going to have to have electricity produced from all sources.

But the Obama Administration has placed so much emphasis on green energy, billions of dollars from the Stimulus Fund has gone for that. All sorts of tax incentives have gone for that and the problem that I have with it is not that we are spending taxpayers dollars to help develop green energy but I think the American people are being misled on the role that green energy can play in the immediate future. For example, the Obama Administration recently came out with a ruling that they wanted to reduce the 2005 greenhouse gas emissions by 83 percent by the year 2035.

Now, when you think about that formula, it is kind of complicated. What does that really mean? Why not just say we are going to allow so many tons of emissions by this date? Well, I think that it is being done because they don't want the American people to recognize really what they are saying. If you look at the numbers of reducing the 2005 emissions by 83 percent, what you are talking about you are taking America back to 1920, in the 1920s. That is the last time we had emissions that low and I will tell you what, in the 1920s only two percent of rural homes in America had electricity. Around 50 percent of American homes in the rest of the country had electricity. We didn't have any cellphones. We didn't have any flat-screen TVs. We didn't have any Blackberrys. We didn't have iPods or iPads. So to think that we are going to reduce by 2035, 87 percent of 2005 emissions, in my view is a pipedream.

Now, having said that, I know this Administration is making the argument that green energy is going to carry out country and that is where the jobs are going to be created. But in my view and from the analysis that I have looked at and from all of the hearings that I have sat through, through the years, I don't think anyone realistically believes that green energy can provide the electricity needs of America any time soon.

Fifty-two percent of our electricity still comes from coal. Seventy percent of electricity produced in China comes from coal. American railroads are taking more coal to the ports today for export to China than at any time in its history. In 2006, 6.7 billion tons of coal were used worldwide. In 2010, it was over 10 billion tons and

they anticipate the additional coal necessary just to meet the needs of China and India in the next few years is going to increase another billion or so.

So yes, we need green energy. We need natural gas. We need nuclear energy but we also are going to have to have coal to meet the expected increase in demand. So the point that I would simply try to like to make is let us be realistic here. Let us not mislead the American people. Let us have an honest give and take discussion, answer questions, ask questions and try to come out with the right policy for the American people and that is what these hearings are designed to do and we look forward to the testimony today. I will introduce all of you a little bit later right before you testify.

[The prepared statement of Mr. Whitfield follows:]

PREPARED STATEMENT OF HON. ED WHITFIELD

The American people are primarily interested in stimulating their economy today and creating jobs. One of the concerns that many of us have is that the long list of regulations being considered at the Environmental Protection Agency today will have a significant impact on job creation.

The energy debate in America today has been summed up in about six words, and this is where we are: fossil fuels bad, green energy good. Many of us recognize that it's a lot more complicated than that. However, in order to meet our increased demands just on the electricity side, we are going to need electricity produced from all sources.

The Obama administration has placed so much emphasis on green energy. Billions of dollars in stimulus money and tax incentives has gone for green energy. And the problem I have is that I think the American people are being misled about the role green energy can play in the immediate future as we use taxpayer money to help develop green energy.

For example, the Obama administration recently came out with a ruling that they want to reduce the 2005 greenhouse gas emissions by 83 percent by the year 2035. Now many think that this formula is complicated and wonder what it really means. Why not just say, 'we are going to allow a specific amount of emissions by a specific date?' I think it is being done because the Obama administration does not want the American people to recognize what they are saying. If you look at the numbers of reducing the 2005 emissions by 83 percent, that would be taking American back to the 1920s. That was the last time the United States had emissions that low.

By comparison, in the 1920s, only two percent of rural homes in America had electricity. Around 50 percent of American homes in the rest of the country had electricity. This was before cell phones, flat screen televisions, Blackberries, iPods, or iPads. To think that we are going to reduce by 2035 83 percent of 2005 emissions, in my view is unrealistic.

Now, having said that, I know this administration is making the argument that green energy is going to carry our country and that is the field in which jobs will be created. But in my view, and in the analysis that I have read and the hearings that have been held on this issue, I do not think that anyone realistically believes that green energy alone can provide the electricity needs of America anytime soon. 52 percent of our electricity still comes from coal and 70 percent of electricity produced in China comes from coal. American railroads are taking more coal to the ports today for export to China than in any time in history. In 2006, 6.7 billon tons of coal was used worldwide and in 2010, it was over 10 billion tons. And it is anticipated that the amount of coal needed to meet the needs of China and India in the next fear years will increase even more.

Yes, we need green energy. We need natural gas, nuclear energy. But we also need coal to meet the projected increase in demand.

Let's be realistic and not mislead the American people but rather have an honest give and take discussion and try to come up with the right policy for the American people. And that is what this and other hearings are designed to do.

I look forward to hearing from our witnesses and thank you for being here today.

# # #

Mr. WHITFIELD. But at this time, I would recognize the gentleman from Illinois for his opening statement.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. I want to thank you, Mr. Chairman, and I want to thank all of the guests for attending today's hearing.

Mr. Chairman, there seems to be a concerted effort by many of my colleagues on your side of the aisle to de-legitimatize the science that says greenhouse gases are and therefore should be regulated. Additionally, in an attempt to counteract all the various respected peer review studies that show the environmental protection industry actually creates jobs and stimulates the economy as well as leads to a healthier and more productive constituency.

Today we will hear testimony that will lead us to believe that any policy that regulates greenhouse gases will automatically lead to job loss. However, it is extremely important for us to remember that just because it is possible to find some within the scientific community to dispute what the other 90 percent of scientists agree on that climate change is manmade, does not make the lone dissenter the authority on this very important issue. And just because different industry sources pay to produce studies that show that regulating greenhouse gases will be costly and yield little to no benefit, doesn't make it true. My point here is that not all studies are not equal and we should carefully vett those individuals who disagree with the vast majority of respected scientists worldwide on the causes of climate change as well as those who refute the reports that say moving toward more efficient and cleaner energy technologies will lead to substantially greater cost without the added benefits.

In fact once again, Mr. Chairman, our side tried to invite one scientist to sit on the witness panel today only to be again revoked by the other side. I cannot imagine why this committee will attempt to move such sweeping and regressive legislation such as that will repeal EPA's ability to regulate harmful greenhouse gases without hearing the scientific evidence of how this will impact our economy, our environment and the public health. I sincerely hope that we will be able to hear from scientists at a future hearing so that we will be able to make informed decisions before moving to any markup of this legislation in this area. After all, just because we may try to ignore the science behind greenhouse gas emissions and how it affects climate changes does not mean it does not exist.

We know that since the inception of the Clean Air Act opponents of the greenhouse view have been warning that environmental regulations will kill jobs and lead to outsourcing overseas. Clean air opponents falsely predicted that electricity prices would skyrocket if the 1990 Clean Air Act amendments were passed when in fact electricity prices actually declined in the decade following 1990 by approximately 18 percent. While we hear that regulating greenhouse gases will cripple our economy and destroy our manufacturing industry, he U.S. Census Bureau conducted an annual survey of the U.S. manufacturing sector and found a solution abate-

ment. Operating costs were only 0.4 percent on average of overall manufacturing loss including not just air pollution controls but all other abatement costs.

Mr. Chairman, actually the Clean Air Act has been one of the most successful and bipartisan environmental laws enacted in American history. Mr. Chairman, I would submit that history has proven that we can protect our environment and also strengthen our economy to sensible and balanced regulation that helps create jobs and new technologies to protect the public interests, increase worker productivity and promote clean air.

With that, I yield back the balance of my time.

[The prepared statement of Mr. Rush follows:]

PREPARED STATEMENT OF HON. BOBBY L. RUSH

Thank you, Mr. Chairman, and thank you to all of the guests attending today's hearing.

Mr. Chairman, there seems to be a concerted effort by many of my colleagues on your side of the aisle to delegitimize the science that says that greenhouse gases are pollutants and, therefore, should be regulated.

Additionally, in an attempt to counteract all of the various respected, peer-reviewed studies that show the environmental protection industry actually creates jobs and stimulates the economy, as well as leads to a healthier and more productive constituency, today we will hear mention of several other studies that attempt to debunk these facts and lead us to believe that any policy that regulates greenhouse gases will automatically lead to job loss.

However, it is extremely important for us to remember that just because it is possible to find some within the scientific community to dispute what the other 90% of scientists agree on, that climate change is man-made, does not make the lone dissenters the authority on this issue.

And just because different industry sources pay to produce studies that show that regulating greenhouse gases will be costly and will yield little to no benefit, does not make it true.

My point here is that all studies are not equal and we should carefully vet those individuals who disagree with the vast majority of respected scientists worldwide on the causes of climate change, as well as those who dispute the reports that say moving toward more efficient and cleaner energy technologies will lead to substantially greater costs without the added benefits.

In fact, once again, our side tried to invite a scientist to sit on the witness panel today, only to be rebuffed. I cannot imagine why this Committee would attempt to move such sweeping and regressive legislation, such as the Upton-Inhofe bill, that would repeal EPA's ability to regulate harmful greenhouse gases, without hearing the scientific evidence of how this would impact our economy, environment, and the public health.

I sincerely hope that we will be able to hear from scientists at a future hearing so that we are able to make informed decisions before moving to any markup of legislation in this area.

After all, just because we may try to ignore the science behind greenhouse gas emissions and how it affects climate change, does not mean it does not exist.

We know that since the inception of the Clean Air Act, opponents of the bill have been warning that environmental regulation will kill jobs and lead to outsourcing overseas.

Clean Air Act opponents falsely predicted that electricity prices would skyrocket if the 1990 Clean Air Act amendments were passed, when in fact, electricity prices actually declined in the decade following 1990 by approximately 18%.

While we will hear that regulating greenhouse gases will cripple our economy and destroy our manufacturing industry, the U.S. Census Bureau conducted an annual survey of the U.S. manufacturing sector and found that pollution abatement operating costs were only 0.4%, on average, of overall manufacturing costs, including not just air pollution controls but all other abatement costs.

In fact, peer-reviewed articles in top economics journals find little evidence that environmental regulations have dampened U.S. competitiveness or led to outsourcing.

Though I am sure today we will hear testimony that allowing EPA to move forward on plans to regulate greenhouse gases will destroy the economy and kill jobs,

I must point out that the Clean Air Act has been one of the most successful and bipartisan environmental laws enacted in American history.

In the 40 years since its enactment, the Clean Air Act has decreased air pollutants by 60%, even as our economy has grown by over 200%.

A peer-reviewed EPA study found that the Clean Air Act was responsible for saving over 205,000 premature deaths, 22,000 cases of heart disease, and 674,000 cases of chronic bronchitis, annually, between 1970–1990.

Additionally, the Clean Air Act has been a stimulant for our economy, with estimates that it generated as much as $300 billion in revenues and $44 billion in exports, while supporting close to 1.7 million American jobs by the year 2008.

In fact, when both direct employment and indirect employment are taken into account, the environmental protection industry is estimated to have created a range of 3.8 million to 5 million new jobs.

These jobs run the gamut from factory workers to engineers, computer analysts, accountants, clerks, ecologists, truck drivers, and consultants, among others.

Promoting cleaner technologies has the benefit of protecting our citizens with cleaner air while also creating jobs and investments for our economy.

The Office of Management and Budget examined ten Clean Air Act regulations finalized in 2008, 2009, and 2010, and concluded that all ten had benefits that exceeded costs, by a ratio of 7 to 1 on average.

In fact, according to the Department of Commerce International Trade Administration, environmental technology exports have grown dramatically from less than $10 billion in 1990 to about $44 billion in 2008, and the U.S. share of foreign environmental technology markets has been increasing.

In 2008, the U.S. had a net trade surplus of $11 billion in environmental technologies, which helped the U.S. balance of trade.

Additionally, according to many top CEOs, there could be a great benefit for industry to have clear-cut rules of the road in regards to clean energy and regulatory obligations moving forward, rather than the piecemeal approach that is being implemented by the States and regional authorities currently.

Mr. Chairman, I fear today's debate is being framed in a way where we are presented with a false choice between "job killing" EPA regulations and having environmental standards to protect our citizens.

I would submit that, in fact, history has proven that we can indeed protect our environment and also strengthen our economy through sensible and balanced regulations that help create jobs and new technologies, protects the public health, increases worker productivity, and promotes clean air.

We've done precisely this before and it can be done again.

With that I yield the balance of my time.

Mr. WHITFIELD. Thank you, Mr. Rush.

At this time I recognize the chairman of the full committee, Mr. Upton, for 5 minutes.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Well, thank you, Mr. Chairman.

This hearing is about jobs. Jobs and the economy, and to imply anything otherwise is misleading. We had this debate in the last Congress and studies estimated that a cap-and-trade national energy tax would produce job losses in the hundreds of thousands, if not millions, yet EPA is unilaterally acting to impose the very same type of policies that Congress rejected in the 111th Congress. Job losses that would come from a cap and tax were not intended consequences. The whole point of federally regulating greenhouse gas emissions is to drive up energy costs so that consumers and businesses are forced to use less.

As the President said, "Under my plan, electricity prices will necessarily skyrocket." Congress said no but now we face an EPA trying to sneak regulations in through the back door. The job losses will span many sectors in businesses large and small.

We live in a global economy with global competition and nations like China have absolutely no intention of similarly burdening their industries. Manufacturing jobs will leave this country unless EPA is stopped. Even for those who don't lose their jobs, the news would not be good. EPA's agenda will boost the price at the pump and drive up electricity bills. It will make farming cost more and hike prices of food.

So let us dispel a myth. Air quality and public health will not be harmed or affected in any way by efforts to slow and then stop EPA's expansive global warming agenda under the Clean Air Act. Since 1970, the Clean Air Act has targeted air pollutants like particulates, ozone, lead, mercury, pollutants known to have adverse health impacts. The result has been a declining emission of these pollutants and we need to make sure that they continue to decline. Absolutely none of these efforts are impeded in any way under the Energy Tax Prevention Act discussion draft. EPA's ability and obligation to regulate and mitigate air pollutants like particulates that cause soot, ozone that cause smog, carbon monoxide, lead, asbestos, chloroform and almost 200 other air pollutants would be protected and preserved. So we can stop the EPA from imposing cap and tax and the Clean Air Act will continue to make our families and communities healthier places.

So let us listen to the facts. This issue is not about air quality and public health. It is about jobs. EPA is not looking at the impact on jobs that the members of this committee should and we must.

And I yield the balance of my time to Mr. Barton.

[The prepared statement Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

This is a hearing about jobs. Jobs and the economy. To imply anything otherwise is misleading.

Scare tactics from the other side are meant as a diversion from what EPA's greenhouse gas regulations would do to American jobs.

We had this debate last Congress. Studies estimated that a cap-and-trade national energy tax would produce job losses in the millions.

Yet EPA is unilaterally acting to impose the very same types of policies that Congress rejected in the 111th.

The job losses that would come from cap-and-tax were not unintended consequences. The whole point of federally regulating greenhouse gas emissions is to drive up energy costs so that consumers and businesses are forced to use less. As the President said, "Under my plan, electricity prices will necessarily skyrocket." Congress said no, but now we face an EPA trying to sneak regulations in through the back door. The job losses will span many sectors, and businesses large and small.

We live in a global economy with global competition, and nations like China have absolutely no intention of similarly burdening their industries. Manufacturing jobs will leave this country unless EPA is stopped.

Even for those who don't lose their jobs, the news would not be good. EPA's agenda will boost the price at the pump and drive up electricity bills. It'll make farming cost more, and hike prices of food.

Let's dispel a myth. Air quality and public health will not be harmed or affected in any way by efforts to slow and then stop EPA's expansive global warming agenda under the Clean Air Act. Let me repeat that: Air quality and public health will not be harmed by stopping EPA's job-crushing global warming agenda.

Since 1970, the Clean Air Act has targeted air pollutants like particulates, ozone, lead and mercury—pollutants known to have adverse health impacts. The result has been declining emissions of these pollutants, and we need to make sure they continue to decline. Absolutely none of these efforts are impeded in any way under the Energy Tax Prevention Act Discussion Draft.

Let me say that again. EPA's ability and obligation to regulate and mitigate air pollutants like particulates that cause soot, ozone that cause smog, carbon monoxide, lead, asbestos, chloroform, and almost 200 other air pollutants would be protected and preserved. We can stop the EPA from imposing cap-and-tax, and the Clean Air Act will continue to make our families and communities healthier places.

Carbon dioxide is very different from the many pollutants specifically listed and targeted for reduction under the Clean Air Act. it is the stuff we exhale and that plants use as food.

Set aside the scare tactics. Listen to the facts. This issue is not about air quality and public health. It's about jobs. EPA is not looking at the impact on jobs, the Members of this Committee should and we must.

Mr. BARTON. Thank you, Chairman Upton, and we can tell that when you speak, your opponents try to spam you so that your message doesn't get out.

It is a good deal to have a hearing. I appreciate Chairman Whitfield having this hearing on the EPA's greenhouse gas regulation and their effect on American jobs.

The answer is self-obvious. If you have something that is really not a pollutant with CO_2 is not as I am giving this speech, I am creating CO_2 and you don't have the technology to regulate and unless there has been a miracle occurred in the last 2 or 3 days, if you burn stuff with carbon in it you are going to create CO_2. It is a chemical fact so we don't have a technology that can control it so if you regulate greenhouse gases or regulate CO_2, in effect you are going to by definition cost jobs because you are going to shut down probably 40 percent of our energy production economy in the United States, maybe 50 percent.

So, in spite of the hypothesis that CO_2 is a pollutant and in spite of the massive educational program to try to convince the American people and the world that CO_2 is bad, the facts are otherwise and I am going to be absolutely stunned if in this hearing we don't hear from our industrial friends that if you really regulate CO_2 to the extent that Chairman Whitfield was talking about in the Waxman-Markey bill, you are basically shutting down the U.S. economy and that is tens of millions of jobs and hundreds of billions of dollars. So this is a very good hearing and I hope, Mr. Chairman, as a result of this hearing we do begin to move the Whitfield-Upton bill and make it explicitly clear that the Clean Air Act does not apply to greenhouse gases.

And with that I yield back to Chairman Upton. I yield back to the subcommittee chairman.

[The prepared statement of Mr. Barton follows:]

PREPARED STATEMENT OF HON. JOE BARTON

Thank you Mr. Chairman. This Committee's commitment to investigate and expose the effects of the Obama Administration's regulations on jobs and our economy continues today as we discuss the ways the Environmental Protection Agency (EPA) plans to impose greenhouse gas regulations under the Clean Air Act (CAA).

Two weeks ago, EPA Administrator Jackson testified before this Committee and she and I went over the six criteria pollutants regulated by EPA under the Clean Air Act, and greenhouse gases are not and should not be one of them. Congress has rejected such legislation, yet the EPA seems determined to regulate greenhouse gasses without examining the disastrous effects of these regulations on jobs and the production and cost of energy.

On February 16th, Congress received a letter from more than a dozen industry trade associations citing a study estimating that EPA's greenhouse gas regulations could decrease capital investments by $25 09 75 billion and result in an economy-

wide job loss of 476,000—1.4 million jobs.[1] I look forward to hearing from the first panel of witnesses comprised of industry representatives about their reactions to this letter and other potential effects of these regulations and the second panel witness, Ms. McCarthy, from EPA's Office of Air and Radiation.

Mr. WHITFIELD. Thank you, Mr. Barton.

At this time I recognize the ranking member from California, Mr. Waxman, for 5 minutes.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Mr. Chairman, this hearing reminds me of an article that appeared in the New York Times magazine on Sunday. The article was titled, "Fact-Free Science" and it describes how Washington has been infected by a mainstreaming and radicalization of antiscientific thought. Today's hearing could be an example A of antiscientific thought in this House where falling down a rabbit hole into wonderland where the facts are turned upside down and fiction is accepted as reality. The premise of this hearing and the legislation that is being reviewed is that climate change is a hoax and EPA's modest efforts to reduce carbon pollution will imperil our economy. These claims remind me of William James who once said, "There is nothing so absurd that it cannot be believed as truth if repeated often enough."

These are the facts: Climate change is real and our future economic prosperity depends on investing in a new clean energy economy. If we don't act to reduce carbon pollution and promote clean energy, we will lose millions of clean energy jobs to the countries that do. China understands this. The Chinese are investing over $2 billion each week in renewable and other green technologies and so does Europe, which is racing ahead of us in reducing carbon emissions and developing advances in solar energy and green buildings.

Last Congress, CEOs from our Nation's leading companies like General Electric and Duke Power told us that billions of dollars in private capital has been frozen because the United States does not have a long-term plan for reducing carbon emissions. The CEO of PG&E, one of the Nation's largest utilities warned of an incredible lost opportunity if we don't act now. He said there are these amazing developing new technology sectors across the United States and we see those jobs going overseas and technology superiority going overseas.

The cost of inaction is not just the loss of leadership in the global economy. We also risk irreversible and potentially catastrophic impacts. Our weather is getting more extreme and more dangerous every year. Last year was the hottest and wettest on record. Floods in Arkansas, Kentucky, Mississippi, and Tennessee killed dozens. They submerged much of Pakistan and Australia, and droughts in Russia and China are driving food prices to record levels. The risks to our economy from climate change are real and are potentially enormous and that is why we cannot have an informed debate about the economic cost of EPA regulation if we ignore these im-

[1] http://thehill.com/blogs/e2-wire/677-e2-wire/144613-oil-mining-groups-urge-house-to-curtail-epa-climate-rules-in-cr

pacts. If we look only at the cost of regulation without considering the cost of doing nothing, we are looking at only half of the equation.

Ranking Member Rush and I have been urging that the subcommittee consider the scientific evidence and we asked for a leading scientific expert to be invited to testify today but this request was denied. We asked for a hearing on two new studies linking severe weather events to manmade climate change but we have not yet received a response. For this reason, we are invoking our rights under the House rules to request a minority hearing with scientists. Last month we heard testimony from Senator Inhofe that climate change is a hoax. We need to hear from real scientists before we mark up the Upton-Inhofe bill. Mr. Chairman, I ask that our letter requesting this hearing be made a part of today's hearing.

Mr. WHITFIELD. Without objection.

[The information appears at the conclusion of the hearing.]

Mr. WAXMAN. I have one other concern about today's hearing and that is the decision to put the EPA Assistant Administrator Gina McCarthy on the second panel. This is inconsistent with the practices of our committee. I raised my concern with Chairman Upton earlier today. He agreed that the general rules should be that the Administration witnesses testify first on their own panel and has been the tradition, Democratic and Republican Administrations but the Committee would proceed differently. That wouldn't happen today. It is too late to change the order of today's hearing but that the Committee would proceed differently in the future hearings. I thank him and, Mr. Chairman, I thank you for the courtesy to make this statement and I look forward to working with you.

Mr. WHITFIELD. Thank you very much, Mr. Waxman.

And before I introduce the members of this panel who will be testifying today, I did want to say that of course Congress, we were not here last week and when I came back yesterday my staff did give me a copy of the February 24 letter that you and Mr. Rush wrote in which you did request convene a hearing to discuss the new studies that you had indicated.

I might say that over the last two Congresses, we have had in the Congress over 24 hearings on climate change and the science relating to it which I do have a list of here. However, I understand also that under the Rule 11 procedure you all are entitled to a hearing with witnesses on the climate change issue that you want to bring up. It is also my understanding after talking to the Parliamentarian that as the chairman of the subcommittee I would have the opportunity to set the date for that hearing. And I would just in order to approach this in a correct way and try to have regular order, I would be happy to notice the hearing and we could notice it today for your two witnesses that you would like, maybe we would bring in a witness or two to maybe get a different view than your witnesses might give and we could do it even next Tuesday. Now, I said next Tuesday simply because we have looked at the calendar out for 3 or 4 weeks and it is very, very full. We are doing lots of hearings on all of the subcommittees but if you, Mr. Waxman, and Mr. Rush would be willing to have this hearing next Tuesday, you select your witnesses, we would notice it today. I

don't want to get involved myself in taking a lot of time in determining who all these witnesses are just because of the time constraints but if you all would be willing to give us the name of those two witnesses, we could notice it today. We can have the hearing next Tuesday.

Mr. BARTON. Will the chairman yield?

Mr. WHITFIELD. Yes.

Mr. BARTON. I appreciate the chairman yielding.

Before we commit to a specific date, I would encourage the subcommittee chairman to enter into a discussion with Mr. Waxman and Mr. Rush and Mr. Upton. Normally, when you—first of all it is very rare to invoke a Rule 11 hearing but when it does happen there normally is some discussion about timing so that both the minority and the majority have adequate time to prepare and also get adequate witnesses and at least in this member's perspective, it would be very difficult to have an appropriate proper hearing by next Tuesday given everything that is happening this week and is scheduled to already happen next week. But I do think that if you have a discussion with our distinguished minority ranking members of the subcommittee and full committee, you could very expeditiously schedule such a hearing that helps both sides.

Mr. WHITFIELD. Mr. Barton, I really appreciate your comments. I will say that we had a 1-hour meeting with staff looking out at the calendar on this issue and of course I am not speaking for Mr. Rush and Mr. Waxman, they may find next Tuesday inconvenient but my understanding from reading the letter and from discussions that I have had with our staff, we were talking about maybe two witnesses on your side and I think we have identified one or two. I think it could be done rather quickly, however I am simply making the offer and yes, sir.

Mr. WAXMAN. Look, I just think it is important to hear from scientists on this issue before we mark up this bill and I am happy to discuss the schedule with you. I can't make any promises at this point but I want to work with you in good faith that we can have this hearing. It is an important part of the debate and if we are going to pass legislation out of this subcommittee, the subcommittee should have a hearing before we do that. That is my only.

Mr. WHITFIELD. Well, I would be happy to do that. I am offering you that we would do a hearing on Tuesday. I can't commit.

Mr. WAXMAN. We will do our best for Tuesday.

Mr. WHITFIELD. Yes, let me just say I can't commit that we will have a hearing before we have a markup but I don't know that that date has been set.

Mr. RUSH. Mr. Chairman, I think that is absolutely critical that we on the outside be allowed to have this hearing based on scientists of our choosing and I am sure you have scientists also. We could have a hearing would be almost without any meaning. I think the members of the subcommittee need to hear from scientists. They need to hear from scientists of our choosing about this important matter.

Mr. WHITFIELD. Well, and like I said we have had 24 hearings on the science.

Mr. RUSH. Mr. Chairman, if I might I would just ask are you planning on having a markup on this hearing next week?

Mr. WHITFIELD. I can say for myself that we have not decided specifically on a date for a markup that I am aware of however we do want to move quickly. I think we have made that very clear in the beginning we want to move quickly on this and I might say that I think our regular order has been much better. Not to get into the health care bill of last year but we didn't even have an opportunity to even offer an amendment on the House floor on that bill but I am offering you all an opportunity to do a hearing on Tuesday. And if not, I suppose obviously you have the right to invoke a Rule 11 and go from there.

Mr. WAXMAN. Mr. Chairman, let us notice your hearing for next Tuesday. We will do our best to get the witnesses there.

Mr. WHITFIELD. OK so we will notice the hearing for next Tuesday.

Mr. SHIMKUS. Mr. Chairman, would you yield for 1 second just to fulfill this debate?

Mr. WHITFIELD. Yes.

Mr. SHIMKUS. If I remember correctly when we moved the Waxman-Markey bill we continuously asked for an economic analysis and we never had a hearing on that prior to the markup of the bill. We did get a hearing 2 weeks after we marked up the bill so, you know, what is good for the goose is good for the gander and what we are trying to do here as we tried to do a couple of weeks ago is talk about the economic impacts. So let us understand the history behind this and we didn't get a chance to deal with the economic aspects. Not a single hearing. The bill was marked up and then 2 weeks later we had a hearing on the economic impacts.

Mr. WAXMAN. Will the gentleman yield to me?

Mr. SHIMKUS. I will.

Mr. WAXMAN. We did have before there was a markup an EPA analysis I think that the members wanted further analysis of it but we did have that before the markup.

Mr. SHIMKUS. Reclaiming my time, we don't consider the EPA the expert on economic impact especially when in our hearing of 2 weeks ago they readily admitted that they don't consider economic impacts in their decision.

Mr. WAXMAN. Will the gentleman yield further?

Mr. SHIMKUS. I would be happy to.

Mr. WAXMAN. We could go back and forth. You did this. We did that. We have asked for a hearing. The chairman has suggested that we take next Tuesday. We are trying to accommodate that request and I think it is helpful for all of us to get all the information we need and I would think since it is an important scientific controversy with members.

Mr. SHIMKUS. Just reclaiming my time and I agree with you. I am just setting the record straight and I yield back.

Mr. BARTON. Will the ranking member yield for a question if it is his turn?

Mr. WAXMAN. I don't have time. It was the gentleman from Illinois' time.

Mr. BARTON. Would the chairman yield?

Mr. WHITFIELD. I recognize the gentleman.

Mr. BARTON. I would like to ask my distinguished friend from California are there some new studies that have come out in the last week, month, even 6 months that you believe are different than all the other studies that we have seen in the last say 12 months?

Mr. WAXMAN. Well, I see six members attending this hearing today who were not on the committee in previous Congress'. I think it would be well for them to be informed. I think it is well worth getting testimony. I think it is an essential part of doing legislation.

Mr. BARTON. But the answer is no? There is no new information?

Mr. WAXMAN. There are new studies linking carbon emissions to severe weather and I think that is an important part of what we have been looking at around the world.

Mr. RUSH. Will the gentleman yield just for a moment?

Mr. BARTON. I think Chairman Whitfield is a saint.

Mr. WHITFIELD. Before—Mr. Waxman, you are not getting ready to leave are you?

Mr. WAXMAN. No, no.

Mr. WHITFIELD. OK.

Mr. BARTON. If I have the time, I am going to yield to my friend from Chicago briefly before Chairman Whitfield reclaims the gavel and moves the hearing forward.

Mr. RUSH. Well, I thank the gentleman for yielding. I think that it is absolutely essential for us to have this hearing with these scientists because the matter before us is very important and I think that it really would inform members. There may be some amendments to this bill that we will be discussing that will be initiated because of testimony and I do possibly see that there might be some amendments that might even be bipartisan once we hear the scientists. So I think this is really absolutely necessary for us to move forward with this hearing so that we can discuss this to its fullest effect.

Thank you, Mr. Chairman.

Mr. WAXMAN. Whoever has the time would you yield further to me?

Mr. BARTON. I do and I am going to yield one last time to Chairman Waxman.

Mr. WAXMAN. I asked earlier today in my opening statement that we make part of the record information on some new studies. We pointed out in our letter to the chairman that there are two new studies linking severe weather events to manmade climate change and I think it is important for us to hear about it even if you don't believe it is true.

Mr. BARTON. I am happy to look at this new information. Being a professional engineer I am always interested in the truth and will be more than happy to.

Mr. WAXMAN. During the 111th Congress there was only one scientist who testified that science didn't testify actually and that was Patrick Michaels and as the chairman knows we are currently examining whether he was fully forthcoming with the committee. I don't think the only scientist, supposed scientist witness on science should be Senator Inhofe.

Mr. WHITFIELD. Thank you all. I agree. I agree.

Mr. WAXMAN. Are you willing to take yes for an answer, Mr. Chairman.

Mr. WHITFIELD. Let me just note we have votes on the floor. We just have two votes and then we are going to come back immediately because we want to hear your testimony but before we break I just want to make sure that I understand here what we have committed to. This is a regular hearing. Not an invoking Rule 11 hearing. Notice today hearing scheduled for Tuesday. You select your two witnesses regarding the studies and we will get a witness or two.

Mr. WAXMAN. We want it to be a regular hearing. We may need more than two witnesses. We will discuss that with you.

Mr. WHITFIELD. We would like to have the names of them today though.

Mr. WAXMAN. We will do our best.

Mr. WHITFIELD. OK.

Mr. WAXMAN. We did send you a letter before the recess.

Mr. WHITFIELD. You did, you absolutely did.

Mr. WAXMAN. We are working with you in good faith. We just think this is an important part of the process.

Mr. WHITFIELD. OK, now we are going to take about a 10 or 15 minute recess and then we will be back and I will introduce this panel and hopefully the next part of this hearing will be even more exciting than the first part.

[Recess.]

Mr. WHITFIELD. OK, thank you all so much for your patience and at this time I would like to introduce the witnesses for the first panel. First of all we have Mr. Mike Carey who is president of the Ohio Coal Association. We have Mr. Paul Cicio, President of Industrial Energy Consumers of America. Mr. Hugh Joyce, President of the James River Air Conditioning Company. Mr. Forrest McConnell, President of McConnell Honda and Acura. Mr. David Montgomery, Vice-President, Charles River Associates and Professor Dan Reicher who is professor law and director of the Steyer-Taylor Center for Energy Policy at Stanford Law School. So I extend a warm welcome to you all. We need your assistance. We look forward to your testimony and I would remind each of you that you have 5 minutes for your opening statements. At the end of that time, once we have completed the entire panel we will have questions from the members. So at this point, Mr. Carey, I recognize you for a 5-minute opening statement and we will go right down the line. Be sure and turn your microphone on.

STATEMENTS OF MIKE CAREY, PRESIDENT, OHIO COAL ASSOCIATION; PAUL CICIO, PRESIDENT, INDUSTRIAL ENERGY CONSUMERS OF AMERICA; HUGH A. JOYCE, PRESIDENT, JAMES RIVER AIR CONDITIONING COMPANY, INC.; FORREST MCCONNELL, NATIONAL AUTOMOBILE DEALERS ASSOCIATION, AND PRESIDENT, MCCONNELL HONDA AND ACURA; W. DAVID MONTGOMERY, VICE PRESIDENT, CHARLES RIVER ASSOCIATION; AND DAN REICHER, EXECUTIVE DIRECTOR, STEYER-TAYLOR CENTER FOR ENERGY POLICY AND FINANCE, STANFORD UNIVERSITY, PROFESSOR, STANFORD LAW SCHOOL, AND LECTURER, STANFORD GRADUATE SCHOOL OF BUSINESS

STATEMENT OF MIKE CAREY

Mr. CAREY. Chairman Whitfield, Ranking Member Rush and members of the committee, good afternoon. I want to thank you for inviting me for the opportunity to testify.

My name is Mike Carey. I am president of the Ohio Coal Association. We are a trade organization that employs roughly 3,000 Americans in our Ohio coal mines and according to many independent studies that number goes up to roughly 30,000 secondary jobs in the coal fields.

It is difficult for me to confine my remarks today on only the greenhouse gas regulations because our industry nationwide is facing an unprecedented onslaught of new rules that will eliminate coal in the direct and indirect jobs associated with it. To be clear, we are not advocating for a rollback or repeal of the current existing Clean Air Act programs but what is coming out of the Obama EPA is a host of new regulatory proposals including the Clean Air Transport Rule and the Utility Mac.

Already, because of threats from the Administration and the EPA, United States power producing companies have announced that they have plans to retire close to 14,000 megawatts of coal-fired electric generation by 2011 and 2020. To be clear, CO_2 does not have a negative health impact. In fact, a repeal is not a rollback of the Clean Air Act. Congress did not intend for it to be regulated in 1990 and has not passed cap and trade legislation.

It is also important to remember what EPA Director Lisa Jackson said just 2 years ago when she was asked what unilateral U.S. action on climate change would do. She said, and I quote, "It would have no significant impact on atmospheric greenhouse gas levels." But the manufacturing jobs in my home State of Ohio and those of the surrounding States of West Virginia, Pennsylvania, Indiana, Kentucky, and Michigan would ultimately see jobs go to China and India for no environmental benefit.

In 2008, President Obama said, and I quote again, "If someone wants to build a new coal-fired power plant, they can but it will bankrupt them because they will be charged a huge sum for all the greenhouse gas that they are emitting." The President couldn't have been clearer with his intentions and his Administration is following forward on their war on the American coal industry.

This legislation that we are discussing today recognizes the logical starting point and that is that Congress never intended greenhouse gases to be regulated under the Clean Air Act. It is my hope

that this committee will take action on all legislation that will interpret this flood of regulations that are an avert attack on our industry, not only just out industry but the low-cost power producing facilities that consume our products and ultimately the American manufacturing base.

We are already seeing some of the effects of the Obama EPA's plan to regulate greenhouse gases. Domestic energy resource companies that had plans to grow job-creating economic development projects simply have moth-balled them and in many ways companies cannot get access to the critical capital from the lenders because of the uncertainty. As this committee contemplates the regulating the specific of greenhouse gas over a certain period of time like a 2-year time period should not be a viable solution. I think those of us who have worked with bureaucracies to try to obtain permits over the years or even a direct answer know that a 2-year delay of greenhouse gas regulations is nothing more than a political ploy and no one in this industry is fooled by that tactic.

Why are these EPA regulations such a problem? First, through the courts EPA has been given an unchecked arbitrary authority over jobs through the Clean Air Act permitting. These actions are unaccountable to anybody, including Congress. The mere existence of the flawed illegal tailoring rule concept shows that the EPA is redefining on their own, outside of congressional authority who they believe should get special consideration, much like the political waivers under the healthcare law. Under present circumstances the EPA can purposely err in granting a permit thereby allowing activists to object and sue in court. Already we are seeing groups such as the Center for Biological Diversity challenging dozens of projects across this country on the grounds of climate under NEPA.

What is ultimately needed is an independent review. I believe that we need legislation that mandates that the House and the Senate review and approve all significant rules or regulations that are promulgated by the Executive Branch. We have this in the State of Ohio and we have had it for many years. The question really comes down to whether Congress wants the EPA to unilaterally decide where economic development will occur, in which industry and how much Americans will pay for their energy.

Mr. Chairman, I thank you for the opportunity to testify today and I stand ready to answer any of your questions. Thank you.

[The prepared statement of Mr. Carey follows:]

Testimony of Mr. Mike Carey

President, Ohio Coal Association

Before the

House Committee on Energy and Commerce, Subcommittee on Energy and Power

"EPA's Greenhouse Gas Regulations and Their Effect on American Jobs"

March 1, 2011

Chairman Whitfield, Ranking Member Rush, Members of the Committee, good afternoon.

Thank you for inviting me to testify today at this very important hearing on the so-called "greenhouse gas" rules and regulations being mandated by the United States Environmental Protection Agency ("USEPA") and their effects on American jobs. My name is Mike Carey, and I am President of the Ohio Coal Association. I also serve on the National Coal Council, which is an advisory committee to the Secretary of Energy on energy resource issues.

The Ohio Coal Association ("OCA") provides a voice for the many thousands of our citizens working in the Ohio's coal sector. We continually seek to educate state and federal lawmakers on the effects that their policies have in keeping Ohio and the rest of our Country competitive with foreign nations in the areas of low cost energy resources, reliable electric power production, and global manufacturing competitiveness. Cheap, affordable coal is what powers the manufacturing base and maintains our families across the Midwest and in other regions of America. The low cost electricity that coal provides is a staple of life and essential to our standards of living in most of America.

The companies we represent are proud to directly employ over 3,000 individuals in Ohio alone, with over 30,000 additional jobs, according to university studies, dependent on our industry. Coal provides our country with a strong international competitive advantage, as we have more coal than Saudi Arabia has oil and gas. Energy Information Administration data shows that at least 261.5 billion tons of coal reserves are available in America using existing mining techniques. Again, not only is coal America's most abundant energy resource, but, by far, it is our lowest cost domestic energy resource.

The impacts of USEPA's draconian, planned rules on power plants and industrial facilities are on the minds of most Americans. They will impact all facets of everyday life. Allowing the USEPA to regulate greenhouse gases will increase the costs to power our Country, cause massive transfers of wealth, and result in huge job losses that will not be recovered.

In fact, it is difficult for me to confine my remarks to only the greenhouse gas regulations, because our energy sector is facing an unprecedented onslaught of new rules that will eliminate the coal industry and the direct and indirect jobs associated with it. However, to be clear, we are not advocating for a rollback or repeal of the current and existing Clean Air Act programs. But what is coming out of the Obama USEPA is a host of new regulatory proposals, including the Clean Air Transport Rule and Utility MACT, which comprise the "train wreck" designed to reengineer our economy by forcing fuel switching away from low cost, affordable coal. We are opposed to this new regulatory onslaught which not only appears designed to force coal out of business, but also to transfer massive amounts of wealth to some New England and West Coast states.

Already, because of threats from the Obama Administration and his USEPA, United States power companies have announced plans to retire nearly 14,000 megawatts of coal-fired electric generation capacity between 2011 and 2020. Power company executives have called the Obama USEPA's actions "unprecedented" and warned that the onslaught of regulations, such as the Clean Air Transport Rule, set to take effect in 2012, will likely cause coal-fired units to be retired at an even faster rate. One credible consulting firm has determined that ultimately 67,000 megawatts of existing coal-fired capacity will be destroyed. This is nearly 100 million tons of lost coal demand annually.

All of this is being dictated by the Obama Administration at a time when our Country must achieve more energy independence. We cite the disruption to oil and gas supplies currently underway in the Middle East, which will continue for many years.

Specific, targeted, proposals of the Obama USEPA to force electric utilities to abandon coal as a fuel source are: (1) the greenhouse gas "endangerment finding; (2) the so-called Clean Air Transport Rule; (3) the National Ambient Air Quality Standards for Ozone; (4) cap and trade schemes; (5) the denial of Clean Water Act Section 402 and 404 permits; (6) coal ash regulations; (7) renewable, subsidized energy standards, and (8) usurping of states' rights and those of the United States Corps of Engineers in denying permits needed for coal mining. There are others from different Obama cabinet departments.

According to an analysis by the U.S. Chamber of Commerce, the use of coal as a power source could decline by seventy-eight percent (78%) in the next twenty-four (24) years if Congress adopts the "clean energy standard" proposed by the Obama Administration. The Chamber advises that coal-fired generation will decline from 44.5% in 2009 to 7.6% in 2035.

Congress must take charge here and see that this is not permitted. Remember, there is a projected thirty-five percent (35%) rise in energy demand in our Country by 2030.

Regarding greenhouse gas regulations, it is important to note that the emission of CO_2 does not have a negative health impact, and its repeal is not a rollback of the Clean Air Act, since Congress did not intend for it to be regulated in 1990 and Congress has not passed "cap and trade" legislation. It is also important to remember what USEPA Director Lisa Jackson said two years ago when asked what impact unilateral U.S. action on climate change would be, she said "it would have no significant impact on atmospheric greenhouse gas levels." But, the manufacturing jobs in my home state of Ohio will definitely go to China and India even though there will be no global environmental benefit.

USEPA regulations on coal production and use place our Country at a distinct economic disadvantage when compared to developing nations, such as China, that are subsidizing coal at the national level to rapidly and unrestrictedly increase coal use to fuel economic growth. China's increased coal burning has intensified Chinese emissions which migrate to the United States. Legislation is needed to immediately stop Obama regulatory authorities from regulating coal use until such time as the international community comes to agreement on how to most fairly regulate coal production and use.

We absolutely must oppose the new effort by the Obama Administration to eliminate coal through the new proposed plant emissions and greenhouse gas regulations. In 2008, President Obama said "If someone wants to build a new coal-fired power plant they can, but it will bankrupt them because they will be charged a huge sum for all the greenhouse gas that's being emitted". Vice President Biden, in his election campaign declared "no coal in America". The

President and Vice President could not have been clearer in their intentions, and this Administration is following through on their promise in their war on coal.

The USEPA isn't alone, Mr. Obama's Department of Interior's Office of Surface Mining and the Department of Labor, through the Federal Mine Safety and Health Administrative, are working on their own efforts to impose strict, costly, and prohibitive new regulatory policies on the coal industry. Even by the Administration's own measure, just one of these rules alone will cost states with coal resources 7,000 direct job losses, which is over 77,000 total jobs, counting the secondary ones. It is unbelievable that such a rule would be pushed in these difficult economic times.

In addition to Ohio, I am confident that the esteemed members of this Committee from states such as West Virginia, Pennsylvania, Illinois, Virginia, and Michigan can appreciate what we are up against with these rogue, out-of-control Obama agencies and departments. Without legislation to stop the USEPA from regulating greenhouse gases, we will see over seventy-seven percent (77%) of all coal mining jobs in America disappear by 2030, per three (3) independent studies. Electricity prices will increase, and our manufacturing base will continue its migration to other parts of the world. This is not a recipe for "winning the future," as President Obama likes to say. Ohio's unemployment rate is currently over 9.5%, and Mr. Obama's USEPA's greenhouse gas regulations will push this rate well into double digit unemployment, with those who remain employed, and those on fixed incomes, struggling to find ways to afford skyrocketing electricity bills.

The discussion draft legislation that is being circulated on this matter recognizes a logical starting point, and that is that Congress never intended greenhouse gases to be regulated when

the Clean Air Act was written. It is my hope that this Committee will take action on legislation that will interrupt this flood of regulations that are an overt attack on coal, power producers, and our manufacturing base.

We are already seeing some of the effects of the Obama USEPA's plan to regulate greenhouse gases. Domestic energy resource companies are unable to move forward with economic development plans that could mean thousands of new jobs across the Country. In particular, there are companies that cannot get access to crucial capital from lenders because of the lack of clarity surrounding greenhouse gas regulations. What our domestic market needs in these challenging economic times is certainty. In many cases, that's all they need; passing legislation to permanently prevent the USEPA from attempting to regulate greenhouse gases under the cloak of climate change is the certainty that our economy requires. Lenders will come back to the table, major companies will seek to invest in the United States, new jobs will be created and old jobs will be saved.

The overreaching regulations of the Obama USPEA affect all facets of business and rate payers of electric power. We cannot forget that many jobs in these industries are often in some of the more rural parts of our Country, such as Appalachia in Ohio, where job losses and massive industrial shifts forced by government rules have had devastating effects. No stimulus or recovery package can come to the rescue when someone loses their job in these regions, as often all they have is their home and their community. Simply picking up and moving on to search for new work is not an option, because, if they own anything, it is their home, and if there are no jobs, who will buy their home? These people, who only want to work with honor and dignity, are permanently forced from the positive to the negative side of our economic ledger.

As the Committee contemplates specific legislative actions, I wish to emphasize that the desire for some to only postpone or delay the USEPA from regulating specific greenhouse gases is not a viable solution. I think those of us who have worked with bureaucracies to try to obtain permits or even a direct answer know that a two-year delay of greenhouse gas regulations is nothing more than a political ploy, and no one in our industry is fooled by this tactic. Regulators will simply sit on their hands for a few years, and then move full-steam ahead to push misguided and costly new rules. This is a completely arbitrary approach that does not rely on the free market or the technology required for carbon capture and sequestration on a commercial scale. A two-year delay also does nothing to improve certainty in the investment community.

Mr. Chairman, we are supportive of clean coal technologies, alternative fuels, and continuing our Country's strong record of safety and productivity. But the Clean Air Act should not be used as a basis to regulate Ohioans out of work, nor did Congress ever intent this. We will work with the leadership in Congress on energy solutions that are clearly on the minds of many Americans, as we observe the frightening developments in the Middle East in recent weeks. We must adamantly oppose the Obama USEPA's trying to impose regulations after they have failed to legislatively pass a fatally flawed "cap and trade" program.

Why are these USEPA regulations such a problem? First, through the courts, USEPA has basically been given unchecked and arbitrary authority over jobs through Clean Air Act permitting. Their actions are unaccountable to anyone, including Congress.

The mere existence of the flawed, illegal 'Tailoring Rule' concept shows that USEPA is redefining, on their own and outside of Congressional authority, who they believe should get

special consideration. Much like President Obama's political waivers under the healthcare law, the Administration can chose winners and losers, and is doing so.

The USEPA has now undertaken to overrule permits granted by state authorities on virtually any grounds. We are seeing this already in Louisiana with the permit for the Nucor Steel plant, which, if built, will provide 1,250 new jobs. The Obama USEPA has been critical of the State's permit and has yet to approve it. Imagine how much more wide-spread this will be once the spotlight is off these dictatorial regulations.

Under present circumstances, the USEPA can purposefully err in granting a permit, thereby allowing activists to object and sue in court. Already we are seeing groups such as the Center for Biological Diversity challenge dozens of projects across the Country for climate grounds under NEPA. This will expand exponentially with the new Clean Air regulations, and the USEPA can sit back and say it wasn't their fault.

We already know that, if you are an aggrieved business or even State (like Texas or West Virginia), you have no timely and effective court appeal opportunity against the Obama USEPA. In Texas alone, they are holding up 167 permits.

The USEPA can, at any time, declare natural gas to be BACT, thereby sealing the fate of coal jobs. Remember what President Obama promised; they will bankrupt anyone who plans to build a coal facility.

These are some of the likely scenarios that will occur, and are actually occurring now. I wish I could give a more concrete assessment on how many jobs will be lost, but I note that Mr. Obama and his USEPA have not developed a job loss determination either. They are required under section 321(a) of the Clean Air Act to complete a jobs impact/employment shift analysis for major rules. They have illegally not done so.

No one has any idea what the cumulative effect of the Obama Administration regulations or American job losses is, or will be. Administrator Lisa Jackson said on February 9 that EPA has not performed a comprehensive economic analysis of its numerous GHG regulations. However, a recent analysis by the American Council for Capital Formation concluded that uncertainty caused by EPA's GHG regulations could, by 2014, result in the loss of $25-75 billion in investment in the economy and that this could result in the loss of 476,000-1.4 million jobs.

What is ultimately needed is an independent review. I believe we need legislation that mandates that the House and Senate review and approve all significant rules and or regulations promulgated by the Executive Branch. In addition the cost should be determined by Congress ensuring an independent third party to do the review.

If we had this in place, the out of control Obama Administration could not destroy the American industry and jobs for our families, as these rules would certainly do.

Since all economic activity releases CO_2 in one form or another, the question really comes down to whether Congress wants the USEPA to unilaterally decide where economic development will occur and in which industry, how America will get its energy supply, and how affordable that energy will be so far all of this is being done without Congressional authorization.

Not a day goes by that hard working coal miners across our Country do not wonder what their futures will be as the USEPA takes hold of unilaterally regulating greenhouse gases. Americans working in related industries that depend on low cost electricity made from coal are asking what America is doing to ensure their livelihood. These same individuals, living in many states throughout the nation, rely on coal as an affordable, reliable source of energy. They are vociferously rejecting this attempted overreach by Mr. Obama's USEPA.

I thank you for this opportunity to testify, Mr. Chairman, and stand ready to answer any questions the committee may have about the job impacts of what is a purposeful war on coal by the current Administration.

SUMMARY POINTS

Testimony of Mr. Mike Carey, President, Ohio Coal Association

March 1, 2011

- Ohio Coal Association member companies directly employ over 3,000 individuals in Ohio alone, which results in 30,000 secondary jobs.

- Allowing the USEPA to regulate greenhouse gases will increase the costs to power our Country, cause massive transfers of wealth, and result in huge job losses that will not be recovered.

- GHG and new air regulations, according to a range of studies, will result in 67,000 megawatts of coal-fired generation to be destroyed. That's equivalent to nearly 100 million tons of lost coal demand annually.

- Emission of CO2 does not have a negative health impact, and its repeal is not a rollback of the Clean Air Act, as Congress did not intend for it to be regulated in 1990.

- The states that stand to be particularly hard-hit include West Virginia, Pennsylvania, Illinois, Virginia, Indiana, Missouri and Michigan.

- Without legislation to stop the EPA from regulating greenhouse gases, over 77% of all coal mining jobs will disappear by 2030.

- The Administration's effort to regulate greenhouse gases is already having negative effects. Domestic energy resource companies are unable to move forward with new economic development plans as important capital remains on the sidelines.

- We will work with Congress on energy solutions, but we must adamantly oppose the EPA's efforts to impose regulations after Congressional action on creating a "cap and trade" program failed.

- No one has any idea what the cumulative effect of the Obama Administration regulations or American job losses is, or will be. The EPA has not developed a comprehensive job loss determination.

Mr. WHITFIELD. Thank you, Mr. Carey.

Mr. Cicio, you are recognized for 5 minutes.

STATEMENT OF PAUL CICIO

Mr. CICIO. Thank you, Mr. Chairman, Ranking Member Rush. I am privileged to be here.

IECA, the Industrial Energy Consumers of America is a organization of manufacturing companies. We have no oil companies, no coal companies, no natural gas companies and no electric utilities. We are manufacturers that produce widgets.

While the manufacturing sector is rebounding, we continue unfortunately to lose competitiveness. The Commerce Department reported on February 11, that the 2010 trade deficit rose to $498 billion dollars, a 32.8 percent increase, the largest in a decade. China represented nearly 55 percent of the deficit.

Our country and we in manufacturing are locked in global competition with other companies and their manufacturing sectors and we are losing. We must once again become a country that embraces manufacturing with policies that foster capital investment, innovation, low relative energy costs and regulations that are cost-effective and provide certainty.

The EPA greenhouse gas regulation is an example of regulation that creates uncertainty and discourages investment and when added to the many other new regulations it is understandable why corporate America is sitting on $2 trillion of cash. The irony is that the manufacturing sector places a high priority on energy efficiency. We are the most energy efficient. We spend more time and money on energy efficiency than any other sector of the economy yet we disapprove of the EPA greenhouse gas regulations that set a maximum achievable control technology on energy efficiency. Especially when there are positive and cost effective ways of achieving significant energy efficiencies for greater use of combined heat and power, or waste heat recovery, or energy efficiency in buildings and building consume 40 percent of all the energy in the country.

A better way that we have proposed is what we call the Sustainable Manufacturing Growth Initiative. It is policies that will revitalize the manufacturing sector over 10 years by improving industrial energy efficiency and it also improves efficiency in buildings. And that modeling of what we are proposing would reduce 10 percent of all U.S. greenhouse gas emissions in 10 years, create 3.2 million man-year jobs and unlock capital-fixed investment of $407 billion that would be invested in the United States rather than in some other country. This is an initiative that every manufacturer in the country would support.

In contrast, I do not know at this time a single manufacturer that produces products in the United States that supports the EPA greenhouse gas regulation and the reason why is that under EPA regulations, EPA takes decision-making out of the hands of manufacturing. They mandate when capital must be spent on energy efficiency technology projects. It mandates what energy efficiency projects will be completed even if it is inconsistent with the scope or timing of other manufacturing production plans, or business strategies, or priorities. It mandates what technology will be used even if that technology is not cost-effective or desirable for the type

or quality of the products that that facility produces. It mandates what manufacturing practices will be used to operate the facility, taking decision-making out of the hands of manufacturing plant operations people and putting it in the hands of the EPA.

Mr. Chairman, the U.S. manufacturing sector has lost 5.4 million manufacturing jobs in 10 years, 31 percent and unless we work together, this Congress and with this Administration we are not going to get those jobs back, and we look forward to working with you to make that happen. Thank you.

[The prepared statement of Mr. Cicio follows:]

Testimony of
Paul N. Cicio
President
Industrial Energy Consumers of America

"EPA's Greenhouse Gas Regulations and Their Effect on American Jobs"

Before the House Subcommittee on Energy and Power
House Committee on Energy and Power

March 1, 2011

Chairman Whitfield and Ranking Member Rush, thank you for the privilege of appearing before you. My name is Paul Cicio and I am the President of the Industrial Energy Consumers of America (IECA).

IECA is a nonpartisan association of leading manufacturing companies with $800 billion in annual sales and with more than 750,000 employees nationwide. It is an organization created to promote the interests of manufacturing companies through advocacy, and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: plastics, cement, paper, food processing, chemicals, fertilizer, insulation, steel, glass, industrial gases, pharmaceutical, aluminum and brewing.

Manufacturing sector is still on the ropes
Manufacturing continues to lose competitiveness as evidenced by recent trade data. The Commerce Department reported on February 11, 2011 that exports grew in 2010 by almost 17 percent – but imports rose 20 percent and pushed the annual trade deficit up to almost $498 billion, a 32.8 percent increase. The largest percent gain in a decade. The trade deficit with China for 2010 reached a high of $273 billion.

Locked in global competition
Our country and the US manufacturing sector are locked in global competition with other countries and their manufacturing facilities – and both are losing relative economic ground. We must once again become a country that embraces the manufacturing sector with policies that foster capital investment, innovation, relative low cost energy and regulations that are cost effective and provide certainty.

It is essential that manufacturing and government work together to create an environment in the US such that companies will want to invest here, versus other countries. Since 1996, manufacturing investment as a share of real GDP fell by 18 percent and the decline is accelerating. This is a clear indicator that relative to other countries in the world, the US has not been a good place for manufacturing to invest for a long time.

The EPA GHG regulation is an example of a regulation that creates uncertainty and discourages investment. And, when added to the many other new regulations, it is understandable why corporate America is sitting on two trillion dollars of cash and are not investing it here. It is too risky versus investing in other countries.

For industry to increase jobs and thrive, we need economic and regulatory/legal certainty. Unfortunately, the EPA GHG regulation is just one of several new, expansive, and expensive regulations that impact manufacturing directly and indirectly. New regulation examples are listed below.

- NAAQS revisions (short-term NOx, SOx, CO, Ozone and PM 2.5, PM coarse, and secondary NOx/SOx);
- Industrial Boiler MACT Standards;
- TSCA;
- Clean Air Transport Rule;
- Utility Boiler MACT Standards;
- Coal Combustion Residual Rules;
- Cooling Water Intake Regulations;
- CISWI MACT;
- Effluent stream conductivity limits proposed for CAPP coal;
- Coal fly ash waste redetermination.

To be sure, the list is staggering and of great concern because each come with a cost and regulatory uncertainty. Each of the initiatives will result in significant costs in their own right, but taken together they could be devastating. The phrase "dying of a thousand cuts" has been used thru out industry to describe the concern. Secondly, the fact that many of these programs are interrelated, but have very different solutions, timetables and goals have resulted in so much regulatory uncertainty that investments in growth projects are virtually at a standstill.

Lastly, as a reminder, capital investment as a result of regulation is a "non-productive" non-ROI use of capital. This means that if capital is used to comply with regulations like those above, than less is available, for example, for a manufacturing company to increase the output of its facilities. Plus regulations increase the cost of operating a facility.

That being said, manufacturing is not opposed to responsible cost effective regulation. We support a clean and healthy environment.

The Practical Impacts of EPA's GHG Regulation on Industrial and Electric Utility Sources

1. Congress never intended GHGs to be regulated under the Clean Air Act
The Clean Air Act (CAA) was never intended to regulate GHGs. It is like trying to fit a square peg into a round hole. The CAA is designed for regional and end-of-pipe type emissions that have technology solutions and relatively few regulated sources or uniform sources (autos).

Regulating GHGs from fossil fuel combustion is quite another issue. Manufacturing has over 400,000 facilities and each can have hundreds if not thousands of combustion sources without a single end of pipe technology solution. The manufacturing industry has thousands of different product technology processes. Frightfully, the EPA portents to understand the technology behind each of these product processes and will regulate each.

2. Elected officials are responsible for deciding how to address climate change – not the EPA
EPA GHG regulation usurps the authority of the legislative branch. Climate change policy is a challenge because some policies can have significant negative direct and indirect economic

impact on every American, manufacturing and on the global competitiveness of the nation. Climate policy touches energy, economic and industrial policy. If we get it wrong, America loses jobs and economic growth. Get it right and we can thrive. Decisions regarding energy, economic and industrial policy are a responsibility of the elected Congress, not the appointed EPA.

3. EPA GHG regulations forces the US to act unilaterally to address an international emissions challenge and jeopardizes competitiveness in the process.
Addressing climate change takes thoughtful unified international action, not unilateral action that will impair industrial competitiveness. That is why the Senate passed the Byrd Hagel resolution that said the US would not act unilaterally – but we are thru EPAs action. EPA mandates to reduce GHGs will increase direct and indirect energy and environmental compliance costs that could drive industry overseas along with their GHG emissions. This is not a solution. Action must be both international in scope and cost effective to avoid shifting our jobs offshore. The EPA GHG regulations are neither.

4. EPA has not done an analysis on what it will cost industry, its impact on jobs and economic growth.
The timing of EPAs actions could not be worse. The manufacturing sector has lost 5.4 million jobs or 31 percent and another 16.2 million related service sector jobs since 2000. In that same time period, over 40,000 facilities have been shutdown. In 2008, US manufacturing produced only 17.6 percent of the worlds manufacturing goods, down from 27 percent in 2000. Meanwhile, China increased their share from 8 percent to 17.3 percent in the same time period. In 2011, experts forecast that China now controls nearly 30 percent of the worlds market while the US is stuck in a job-less economic recovery and is struggling to reduce unemployment, increase exports and economic growth. This is not the time to implement untried regulations with unknown, but potentially significant costs.

5. EPA is now in control of US industrial policy.
Under these regulations EPA sets deadlines as to:

- "when" capital must be spent on energy efficiency technology projects;
- "what" energy efficiency projects will be completed, even if it is inconsistent with the scope or timing of other manufacturing production plans or business strategies or priorities;
- "what technology" will be used, even if that technology is not cost effective or desirable for the type or quality of products that the facility produces;
- what manufacturing "practices" will be used to operate the facility, taking decision making out of the hands of plant managers and into the hands of the EPA.

As an example, the GHG regulation gives industry time deadline to comply. The energy and capital intensive industries like chemical, steel, aluminum, fertilizer, cement, glass and paper could find themselves mandated to apply best available control technology on most of its equipment. If that is the case, there are not enough suppliers to serve industry demand all at the same time. Demands from all of industry at the same time would also significantly raise the costs of each project. Alternatively, applying MACT technology may be too expensive given the life of a facility or the business strategy and the EPA MACT could become the catalyst for facilities to be shut down. Add the MACT demands of the electric utility and refining industry on top of manufacturing sector demand, it is easy to understand why we are concerned.

6. Could create winners and losers within the same industry in different states.
Two competing companies in two different states could have different State imposed GHG regulations with different costs directly impacting competitiveness and jobs.

7. EPA GHG regulations are legally uncertain - that becomes <u>our</u> economic uncertainty.
A large number of legal challenges have been filed that will take years to resolve. The courts will decide, potentially leaving business at risk if EPA's program is deemed not legal.

IECA's "Sustainable Manufacturing & Growth Initiative" (SMGI), a better way.
The University of Maryland economic modeling of the IECA "Sustainable Manufacturing & Growth Initiative" (SMGI) illustrates that its policies reduces 10 percent of US GHG emissions in ten years while creating 3.2 million man-year jobs, cumulative private fixed investment of $407 billion over 10 years while revitalizing the competitiveness of the manufacturing sector.

Thank you.

Mr. WHITFIELD. Thank you very much.

Mr. Joyce, you are recognized for 5 minutes.

STATEMENT OF HUGH A. JOYCE

Mr. JOYCE. Good afternoon, Chairman Whitfield and Ranking Member Rush and members of the subcommittee. Thank you for giving me the opportunity to speak today.

I am the owner of James River Air Conditioning located in Richmond, Virginia. We perform HVAC, plumbing, electrical, solar and geothermal work on residential and commercial construction and retrofit projects. We currently have 150 full-time employees. My father started the company in 1967 and I joined in 1977 while I was still in high school and worked my way up to president and owner. I have always made it a priority to conduct business with environmental consequences of my decisions and actions kept in mind. I am a member of the U.S. Green Building Council and manage LEED certified greenhousing projects. In fact, we designed, supervised and constructed the first LEED platinum house certified in Richmond. It was completed in September, 2010, 95 percent of its energy comes from solar power. It is also connected to Google PowerMeter which gives it a daily efficiency rating.

We also focus on energy efficiency in our own office building which generates 10 percent of its power with solar panels on the roof. I am making these examples for two reasons. One, I have bet the entire net worth and the future of my business on conservation, green construction and reducing greenhouse gases, and implementing green strategies for myself and my clients. Secondly, efficiency and conservation make good business sense and I want to leave the world in a better place as a result of my work. Let me emphasize that I and many other small business owners choose to run our companies this way without government mandates.

Attempts by the EPA to regulate greenhouse gases under the Clean Air Act will drive up our costs and will hinder economic recovery particularly in the construction industry. Construction impacts our economy significantly. Currently, new construction is down 50 to 90 percent in my market. Some houses and commercial buildings in Richmond are selling for less than the raw cost of materials to rebuild them. It routinely takes six months to plan and permit a project. A federal permit would cause the process to take even longer. The cost of modeling, and engineering, and reviewing, and pre-permitting, and cutting through the EPA red tape to permit as the new finding rules indicate would be the case could add one to four percent in professional cost to the average construction job. Currently, expenditures on material, labor and insurance are increasing, yet buildings are selling for less. Any new permitting mandates that increase costs like the EPA's regulatory plan would further limit new construction good jobs. Simply put, more confusion, greater uncertainty, means less work and fewer construction jobs.

Due to the already heavily regulated nature of the construction industry I have one full-time employee dedicated to monitoring and ensuring compliance with regulations. Additional employees contribute to regulatory compliance as well. Regulation such as the

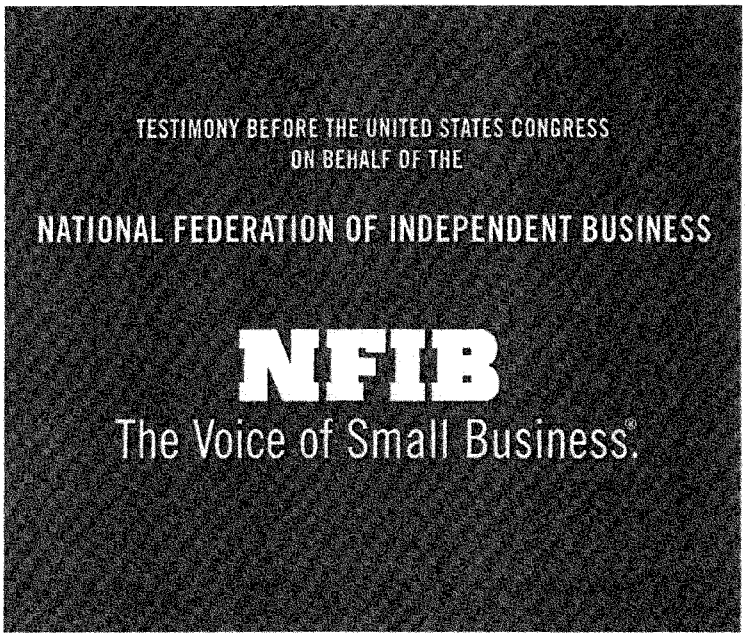
EPA greenhouse gas rules would be extremely burdensome for business and clients.

According to the SBA, small businesses spent 36 percent more per employee on regulations than their larger counterpoints and 360 percent more on environmental regulation. Environmental regulations alone cost my business approximately $150,000 a year. Combining that with other regulations, the total regulatory cost for my business is nearly $250,000 a year. As a small business owner my hope is the instead of punitive government policies we can incentivize environmentally friendly behavior. The EPA's own Energy Star program is one such example.

When it comes to reducing greenhouse gases and pollution and moving this country forward, I believe we can get more sugar than we can with vinegar. Let us tap the power of American innovation, new clean energy sources, incentives and free market forces to win the battle against pollution. Please help us avoid regulations that will increase costs and create barriers to new jobs that will have little or no effect on reducing overall global pollution.

Thank you for having me here today.

[The prepared statement of Mr. Joyce follows:]



Testimony of Hugh Joyce, James River Air Conditioning, Inc.

THE HOUSE COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON ENERGY AND POWER

"EPA's Greenhouse Gas Regulations and Their Effect on American Jobs."

March 1, 2011

Good morning, Chairman Whitfield, Ranking Member Rush and members of the subcommittee. Thank you for giving me the opportunity to speak with you today regarding the impact of Environmental Protection Agency (EPA) regulation of greenhouse gases (GHGs) under the Clean Air Act (CAA) on small businesses, in particular their potential to cause job loss.

I am the owner of James River Air Conditioning, Inc. located in Richmond, VA. We perform HVAC, plumbing, electrical, solar, and geothermal work on residential and commercial construction and remodeling projects. We currently have 150 full-time employees. My father started the company in 1967, and I began working for him when I was in high school. After college, I joined the company full time, working my way up through the sales department and became president in 1993.

I have always made it a priority to conduct business with the environmental consequences of our decisions and actions kept in mind. I am a member of the U.S. Green Building Council and conduct LEED certified green housing projects. In fact, we designed, supervised and constructed the first certified LEED Platinum house in Richmond, which was completed in September 2010. Ninety-five percent of its energy use is from solar power. It is also connected to a Google power meter that gives itself a daily efficiency rating. We further our efficiency at our office building, which generates 10 percent of the power consumed with a PV Solar system installed on the roof. I drove to DC in my Smart car, and I have two electric cars on order for my business.

I am making these examples for two chief reasons: because I have bet my entire net worth and the future success of my business on conservation, green construction, reducing greenhouse gasses and implementing practical, green strategies for myself and my clients; and, because I think it is the right way to run my business. It makes good business sense and I want to leave the world a better place. I want to emphasize that I and many other small business owners choose to run our companies this way – without government mandates.

America can and will reduce pollution of all types without punitive, expensive and complicated government regulations. Consumer demand and a business's cost saving strategies will naturally lead to changes that will reduce the five gasses the EPA is attempting to further regulate. The changes are occurring now. My small business is a great example. Most businesses want to market themselves as "green" and are moving quickly without government intervention. Attempts by the EPA to regulate GHGs under the CAA will only drive up costs and hinder economic recovery – particularly in the construction industry.

Construction constitutes approximately 20 percent of our economy. Currently, new construction is down 50 to 90 percent. If we want to create jobs, entrepreneurs must be willing to take risks – risks similar to the ones I have taken. Right now houses and commercial buildings in Richmond are selling for less than the cost of the raw materials it would take to rebuild them. Owners and developers already have so many permit processes to complete, hours of legwork, and a mountain of fees, it is nearly impossible to get a project through to approval now. We routinely see six month approval periods to get a project from the design phase and through the permit processes that are already required. The EPA's current effort – would slow my projects down even further.

The cost of modeling, engineering, reviewing, permitting, and cutting through general red tape to get the type of permit that would result from the EPA's greenhouse gas regulations would stop most private projects. I would estimate that the additional consulting costs would add 2 to 10 percent to project costs.

My material, labor, insurance and energy costs are all increasing, yet my buildings are selling for much less. Any new permitting or mandates that increase costs, like the EPA's regulatory threats, could really be the end to what little economic recovery we are experiencing.

EPA's regulatory agenda

EPA's regulation of GHG emissions from stationary sources will have a significant economic impact on small business since, according to EPA's own numbers, millions of sources (a large percentage of which are small businesses) could become subject to Prevention of Significant Deterioration (PSD) and Title V permitting requirements. The EPA's Tailoring Rule would merely temporarily delay inevitable and onerous permitting requirements.

As the Tailoring Rule gets set to go into effect, confusion and uncertainty about the rules will be felt by small business and by regulators at local, state, and federal levels. Adding to the uncertainty is the fact that the Tailoring Rule does not preempt state law, so it does not preclude individual states from requiring permits for smaller entities. In addition, the Tailoring Rule is subject to multiple legal challenges, creating more confusion regarding the regulatory landscape for small businesses in the near future.

Trying to account for risks and uncertainties imposes a greater burden on small businesses than on other economic actors, because regulations affect small businesses in a substantially different way than they affect large businesses. Due to the already heavily regulated nature of the construction industry, I have a full-time employee dedicated to monitoring and ensuring compliance with all regulations, including permits. Additional employees contribute to regulatory compliance, also. Convoluted regulations, such as EPA's greenhouse gas rules and their legalistic nuances, formalizing plans for implementation, and filling out the necessary, voluminous paperwork are still an extremely burdensome exercise for my business.

The uncertainty with regard to future regulatory action by both EPA and state permitting authorities is extremely troublesome. Simply put, more confusion and greater uncertainty means less work and fewer jobs. The regulatory environment coming out of Washington means small firms like mine are continually and increasingly dissuaded from making long-term business investments. Instead of taking on new projects which, in turn, could add jobs in industries like mine, we will be forced to remain stagnant.

Increase in costs associated with the EPA's regulatory agenda

Overzealous regulation is a perennial cause of concern for small business owners, and is particularly burdensome in times like these when the nation's economy remains sluggish. Unfortunately, the regulatory burden on small business has only grown. A recent study by Nicole and Mark Crain for the U.S. Small Business Administration Office of Advocacy found that the total cost of regulation on the American economy is $1.75 trillion per year[1].

If that number is not staggering enough, the study reaffirmed that small businesses bear a disproportionate amount of the regulatory burden. The study found that for 2008, small businesses spent 36 percent more per employee on regulation than their larger counterparts, and 364 percent more on environmental regulations. Environmental regulations alone cost my business upwards of $150,000 per year. Combining that with other regulations, total regulatory cost for my business is nearly $250,000 per year.

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[1] [1] Crain, Nicole and Mark Crain. *The Impact of Regulatory Costs on Small Firms*. September 2010

As a small business owner, my recommendation is that instead of assessing punitive actions on business, you should continue to incentivize environmentally friendly behavior. The Energy Star program is one such example. This is the only way we will succeed in reducing greenhouse gases and pollution. We must give our nation's power companies, developers, consumers and municipalities flexibility and guidelines to improve our emissions. Regulations always have unintended consequences and significant hidden costs.

The EPA's efforts to regulate greenhouse gases will substantially enlarge the regulated community, increase standards to near impossible levels, and impose severe paperwork and compliance burdens on small business owners at a time when America's small businesses can least afford it.

Thank you again for having me here today and I'm happy to answer any questions.

Mr. WHITFIELD. Thank you, Mr. Joyce.

Mr. McConnell, you are recognized for 5 minutes.

STATEMENT OF FORREST MCCONNELL

Mr. MCCONNELL. Mr. Chairman, Ranking Member Rush, my name is Forrest McConnell. I am president of McConnell Honda and Acura of Montgomery, Alabama and I am testifying on behalf of the National Automobile Dealers Association.

Today there are three different fuel economy programs administered by three different agencies under three different standards pursuant to three different laws. America's auto dealers support a single national fuel economy program under CAFE beginning in model year 2017 as the best way to increase fuel economy, protect jobs, preserve passenger safety and reduce vehicle tailpipe CO_2 emissions. Congress did not intend fuel economy to be regulated by NHTSA, EPA and California together when it passed a bipartisan Ten-in-Ten Fuel Economy Act in 2007. It is paramount for Congress to reassert its primacy over this area and return the still recovering auto industry into a single national fuel economy standard.

There are numerous advantages to this approach. First, its terms are set by you, Congress. Second, only CAFE mandates a balancing of all the important considerations when setting fuel economy standards, jobs, safety, customer choice and customer acceptability. Third, CAFE was written specifically to regulate fuel economy. The Clean Air Act for all its virtues was not. California's regulation was written also to regulate fuel economy but only in California. Its application in other States results in what the EPA Administrator Jackson calls a patchwork of State standards. Fourth, a single national fuel economy is by definition uniformly consistent unlike what we have today.

While the next round of fuel economy rulemaking will not take effect until model year 2017, the rules are being drafted now in Sacramento and Washington. As a dealer, I am worried about the challenges California's regulation would impose on my industry and our customers. According to a recent New York Times, a California official has indicated that CARB, California Air Resource Board will implement its patchwork regime in the California State in the next round of rulemaking if necessary. This would be problematic for auto dealers and customers because unlike CAFE, CARB's regulations will distort the auto market and do nothing additional to decrease greenhouse gas emissions or improve fuel economy on a national basis. California's approach to fuel economy regulation involves loopholes, exemptions, market distortions and does not balance national factors. CAFE has none of these defects. Congress needs to reaffirm that this body sets national fuel economy policy, not California regulators.

Mr. Chairman, it is doubtful that Congress would ever enact three competing fuel economy programs. State regulation is unnecessary. Regulation of tailpipe CO_2 emissions by EPA is redundant as the only way to reduce such emissions is to increase a vehicle's fuel economy which CAFE regulates. America's auto dealers support a single national fuel economy program and increases a fuel economy that makes sense to customers. It is important that the

structure of the fuel economy program is sound so that the stringency of the fuel economy standard will be correct. That structure must leverage, not frustrate consumer demand. Unless customers actually buy new vehicles the environmental and economic benefits will not be realized. I urge Congress to return to a single national fuel economy standard under CAFE to avoid that risk.

Thank you.

[The prepared statement of Mr. McConnell follows:]

Executive Summary
Testimony of Forrest McConnell,
President, McConnell Honda & Acura, Montgomery, Alabama
on behalf of the National Automobile Dealers Association
Before the House Energy and Power Subcommittee
"EPA's Greenhouse Gas Regulations and Their Effect on American Jobs"
March 1, 2011

America's auto dealers support a single national fuel economy standard and increases in fuel economy that make sense to consumers. Our primary concern is not necessarily over the stringency of the fuel economy standard, but rather the overall structure of the fuel economy regulations that govern automobiles today, which currently emanate from three different programs established by three separate government agencies. A single national standard will more effectively increase fuel economy, enhance economic growth, protect passenger safety, and protect the environment. Unless and until consumers actually purchase new vehicles, none of these benefits will be realized.

California regulators should not set national fuel economy policy. National fuel economy policy should be set by Congress and not by CARB. California regulators wrote their fuel economy regulation solely for the California auto market. By law, CARB does not consider the impact of its fuel economy rules on job loss, consumer affordability or choice, or highway safety, outside of California.

CARB's regulation of fuel economy/CO_2 is very different from the CAFE program. California's regulation is similar to the CAFE program in one way: both regulate fuel economy. The methods, structure and stringency of the programs, however, are very different.

In California states, CARB's regulation could pose special challenges for auto dealers and consumers. Unlike the CAFE program based on a nationwide fleet fuel economy average, CARB's regulation requires that the fleet averaging be conducted on a state-by-state basis in each of the states that has adopted California's rules or in a pool of all the "California" states. If consumers do not buy the "right" mix of vehicles from a regulated automaker in each California state, then that automaker must either ration or stop selling certain vehicles with lower mileage ratings, or force dealers to take delivery of more vehicles with higher mileage ratings – *without regard to actual consumer demand in that state.*

Under explicit direction from Congress, NHTSA has the tools to strike the proper balance for a national fuel economy program. Unlike the Clean Air Act, the CAFE program was written by Congress specifically to regulate fuel economy. While Congress mandated that fuel economy be raised to its "maximum feasible level," Congress also recognized that any fuel economy increases be tempered by its impact on job loss, consumer demand, and consumer choice.

State regulation is completely unnecessary and ineffective because the vigorous CAFE program Congress designed, coupled with EPA regulation of vehicle air conditioners, results in approximately the same amount of fuel saved and greenhouse gases reduced.

Congress must return to one true national standard for the reduction of CO_2 and the increase of fuel economy. The statute Congress designed provides a regulatory program within NHTSA that provides consistent increases in fuel economy with flexibility to consider the cars consumers are willing to buy. The faster that we can turn over the nation's aging auto fleet the faster we will increase energy security, enhance passenger safety, and improve environmental quality, and generate the economic activity that is necessary for restoring jobs in the automotive industry. Even after the Great Recession, auto retailing is a still a significant percentage of our national economy. As a practical matter, any sustainable economic recovery must go through automotive showrooms across the nation.

Testimony of Forrest McConnell
President, McConnell Honda & Acura
Montgomery, Alabama
on behalf of the
National Automobile Dealers Association
Before the
House Energy and Power Subcommittee
March 1, 2011

"EPA's Greenhouse Gas Regulations and Their Effect on American Jobs"

Mr. Chairman, Ranking Member Rush, my name is Forrest McConnell. I am President of McConnell Honda & Acura of Montgomery, Alabama. My grandfather started our business in 1919, and I have been an automobile dealer since 1987, employing 70 people. While I own and operate a Honda franchise, I do so as an independent business person, and am not in any capacity representing the American Honda Motor Company. Today I am testifying not simply as an auto dealer but also on behalf of National Automobile Dealers Association (NADA), where I serve on the Board of Directors and as a member and the immediate past chairman of the Regulatory Affairs Committee.

America's auto dealers support a single national fuel economy standard and increases in fuel economy that make sense to consumers. Our primary concern is not necessarily over the stringency of that fuel economy standard, but rather the overall *structure* of the fuel economy regulations that govern automobiles today, which currently emanate from three different programs established by three separate government agencies. A single national standard will more effectively increase fuel economy, enhance economic growth, protect passenger safety, and protect the environment. Unless and until consumers actually purchase new vehicles, none of these benefits will be realized.

In 2007, Congress passed a bipartisan bill entitled the "Ten-in-Ten Fuel Economy Act",[1] as part of the Energy Independence and Security Act. This landmark law raised fuel economy standards by at least 40 percent and set out a single national fuel economy program administered by a single agency – the National Highway Traffic Safety Administration (NHTSA) – until 2030.

Today, this law, whose passage was applauded by everyone from automakers to environmentalists, is at risk to being reduced to a near nullity. As the result of actions by the judicial and executive branches, there are now three fuel economy programs administered by three different agencies – NHTSA, the Environmental Protection Agency (EPA), and the California Air Resources Board (CARB) – under three different sets of rules, pursuant to three different laws. This tangle of fuel economy regulations was cobbled together in 2009 under the rubric of what is known as the "National Program."

The National Program can be viewed as a necessary bridge until Congress reasserts its rightful role to set national fuel economy policy. To this end, NADA supports allowing the National Program to proceed as promulgated, expiring in model year 2016. For the next round of rulemaking, however, which is currently slated to be in effect from model years 2017-25,

[1] Pub. L. No.110-140, 121 Stat. 1492 (2007)

Congress must have the nation's auto industry return to one national fuel economy standard under the Corporate Average Fuel Economy program (CAFE) program.[2] To be clear, we support a single national fuel economy standard, not a single set of standards as exists today.

While the next round of fuel economy rulemaking will not take effect until model year 2017, these rules are literally being drafted now in Sacramento and Washington. On September 1, 2011, they are expected to be formally proposed, with final rules issued by summer 2012. Congress must act now to ensure that beginning with model year 2017, Congress sets national fuel economy policy and the three-different-fuel-economy-regimes model is allowed to expire.

There are numerous advantages to returning to a single national fuel economy standard. First, its terms are set by Congress. Second, the CAFE program was specifically written to regulate fuel economy. The Clean Air Act (CAA), for all its virtues, was not. To be sure, California's regulation was written also to regulate fuel economy – but only in California. Its application in other states results in what EPA Administrator Lisa P. Jackson calls "a patchwork of state standards."[3] In fact, the structure of CARB's regulation is so disruptive to automotive manufacturing and retailing that, for model years 2012-2016, CARB amended it to accept federal compliance as compliance with its state regulation.

Next, a single national fuel economy program will always, by definition, be more uniform, consistent, and harmonized than three different programs. While the Administration has touted the National Program at various times as uniform, consistent and harmonized, that is simply not the case. The chart below shows the stark statutory differences between the different regulatory regimes:

Differences Among the Three Standards

AREA OF DIFFERENCE	CAFE	CARB	EPA
Complying Solely With One Standard Ensures Compliance with the Other Two Standards?	No	No for MY09-11 Yes for MY12-16 Unknown for MY17-?	No
Automakers Must Report To?	NHTSA	13 Different State Agencies and DC	EPA
Allowed to intentionally pay fines in lieu of compliance with standards?	Yes	Yes	No
Penalty for Non-Compliance	$5.50 per 1/10 of a mile under the fleet average times number of vehicles	$10,000 per vehicle	Fine of up to $37,500 per vehicle/revocation of certificate to sell in the U.S.
Credit for Air-Conditioning? (new refrigerant, lower leaks)	No	Yes	Yes
Economic Considerations Taken Into Account When Setting a Standard (Job Loss, Consumer Choice, Market Demand)	Yes	Yes, in CA only	Limited "economic practicability" analysis
Highway Safety	Primary mission of the agency	"No Safety Issues"	Not its primary mission
Underlying Statute Designed to Regulate Fuel Economy?	Yes	Yes, in California only	No
Basis for Setting Standard	Attribute-based (mandatory)	"Flat" Standard	Attribute-based (discretionary)

[2] The CAFE program sets fuel economy standards for passenger cars and light duty trucks.
[3] EPA Administrator Lisa P. Jackson, Remarks at the National Press Club, as prepared (March 8, 2010).

Absent a change in law, these differences cannot be reconciled, and they certainly cannot be properly characterized as "uniform," "harmonized," or "consistent."

California regulators should not set national fuel economy policy. National fuel economy policy should be set by Congress and not by CARB.[4] The automotive industry, which has for more than thirty years met fuel economy standards nationwide across all state lines, simply cannot afford the unnecessary complexity and cost of multiple, state-by-state rules which do nothing to enhance policy objectives. Importantly, while the CAA allows California to regulate air pollution unique to California, it does not and should not allow California or any other state to regulate fuel economy, an area of regulation Congress specifically reserved for the Federal government.

California's fuel economy regulation was written by California regulators solely for the California auto market. By law, CARB does not consider the impact of its fuel economy rules on job loss, consumer affordability or choice, or highway safety, outside of California. Therefore, if an auto plant in my home state of Alabama were to be shuttered because of California's fuel economy rule, the displaced workers would have virtually no recourse. In reality, California has been *de facto* empowered by the "California waiver"[5] to set the national fuel economy standard. This power is derived from the fact that California can, and has reportedly indicated that it would implement its patchwork regime in the "California states" if it deems it necessary.[6]

CARB's regulation of fuel economy/tailpipe CO_2 is very different from the CAFE program. California's regulation is similar to the CAFE program in one way: both regulate fuel economy. The methods, structure and stringency of the programs, however, are very different. For example, the CAFE standard set by the Obama Administration is actually higher than the California standard. In model year 2016, the CAFE standard is 34.1 mpg; the equivalent California standard is 32.3 mpg.[7] People often assume that California's standards are always more stringent, but that is not true in this instance.

CARB's exemption policy is also at odds with congressional policy, and has the potential to confer a regulatory advantage to certain automakers. California's fuel economy program exempts (until 2016) automakers who sell less than 60,000 vehicles per year on average in California. Manufacturers exempt in California are also exempt in every CARB state, regardless of how many vehicles are sold outside of California. After 2016, CARB regulates these vehicles at a lower standard. At least fifteen different makes are exempt, and new entrants who expect to sell less than 60,000 vehicles in California would also be exempt.

In contrast, the CAFE law only exempts vehicle manufacturers that make fewer than 10,000 vehicles annually *worldwide*.[8] Congress enacted this policy because exempting some automakers (1) does not increase fuel savings and (2) confers a regulatory advantage on the

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[4] CARB believes its fuel economy rules "would be a better 'national solution.'" See CARB, "*Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFE Standards and California, An Enhanced Technical Assessment.*" (Feb. 25, 2008), pg. vii.

[5] In 1977, Congress amended the CAA to allow other states to adopt and enforce standards set by CARB, if covered by an EPA preemption waiver.

[6] Jim Witkin, "*California, U.S. Agree on Emissions-Standards Announcement Date*, N.Y.Times, Jan. 26, 2011.

[7] See Appendix B to compare the stringencies of both programs.

[8] 49 U.S.C. § 32902(d)

exempt automakers. While the deleterious effects of these exemptions have been postponed under the National Program, the potential for this aspect of CARB's regulation to distort the auto market in the future is real.

For auto dealers and consumers in the California states, CARB's regulation could pose special challenges. Unlike the CAFE program, which is based on a nationwide fleet fuel economy average, CARB's regulation requires that the fleet averaging be conducted on a state-by-state basis in each of the states that has adopted California's rules, or in a pool of all the "California" states. If consumers do not buy the "right" mix of vehicles from a regulated automaker in each California state(s), then that automaker must either ration or stop selling certain vehicles with lower mileage ratings, or force dealers to take delivery of more vehicles with higher mileage ratings – *without regard to actual consumer demand in that state.* This method of compliance, called "mix shifting" does nothing to decrease greenhouse gas emissions (GHGs) or improve fuel economy on a national basis.

Additionally, another flaw in CARB's regulation is the loophole[9] whereby vehicles purchased outside of the measuring state(s) do not count against an automaker's fleet-wide average in the measuring state(s). As a result, new car buyers can simply go across state lines to find the vehicle they want. Giving one state's auto dealers a sales advantage over another state's auto dealers distorts the retail auto market for no commensurate environmental benefit.

After years of denying the very existence of this "patchwork," a CARB official recently took credit in a letter to automaker CEOs for eliminating it.[10] What CARB did was to allow compliance either in each California state (which is the "patchwork") or together in all the California states (which is a "patchwork light"). If regulating the fourteen "California" states as one is better than regulating each California state individually, then surely having the same rules for all 50 states would be the best. This, incidentally, describes the CAFE program Congress designed to meet national interests.

The loopholes, exemptions, market distortions, and inability to balance national factors when setting a fuel economy regulation of CARB's regulation do not favorably compare to the CAFE program, which has none of these defects. Congress needs to address whether fuel economy policy is going to be set by its rules, or whether California regulators will dictate national fuel economy policy.

NHTSA should be the sole regulator of fuel economy/tailpipe CO_2 emissions. Under explicit direction from Congress, NHTSA has the tools to strike the proper balance for a national fuel economy program. Unlike the CAA, the CAFE program was written by Congress specifically to regulate fuel economy. While Congress mandated that fuel economy be raised to its "maximum feasible level," Congress also recognized that any fuel economy increases be tempered by its impact on job loss, consumer demand, and consumer choice. For example, if NHTSA found that raising fuel economy to a certain level would cause job losses, highway fatality increases, or limit consumer choice, those important considerations would be given appropriate weight while setting a maximum feasible fuel economy standard. This is a vital part of the CAFE program, because Congress knew that as important as it is to improve fuel

[9] This loophole is known as the "cross border sales loophole."
[10] Letter from Mary Nichols, Chairman, CARB, to CEOs of seven automakers (February 11, 2011).

economy, it is also important not to have policies that increase unemployment or cause additional deaths on our nation's roads.

In contrast, since the Clean Air Act was not designed to regulate fuel economy, there is no identical "economic practicability" analysis when EPA sets a standard under that Act. Job loss, highway safety, and affordable vehicle choice are important considerations that are diminished when EPA regulates fuel economy.

Some supporters of the three-fuel-economy-regulations-regime contend that EPA is only regulating CO_2 emissions and not fuel economy, and since the CAA has been successful in regulating other criteria air pollutants, the regulation of tailpipe CO_2 is no different. But regulation of tailpipe CO_2 emissions and fuel economy are different sides of the same coin.[11] No device (such as a catalytic converter for criteria air pollutants) exists to reduce tailpipe CO_2 emissions. The only way to reduce tailpipe CO_2 emissions is to increase a vehicle's fuel economy.

Apart from the Congressionally-established statutory provisions that make NHTSA the more appropriate regulator of fuel economy/tailpipe CO_2, EPA's approach to regulating fuel economy/tailpipe CO_2 is not consistent with the congressional design. Justice Stevens wrote in *Massachusetts v. EPA* that "there is no reason to think [NHTSA and EPA] cannot both administer their obligations and yet avoid inconsistency."[12] Yet the following chart shows that even where EPA had the discretion to harmonize with the policy set out in the CAFE program by Congress, EPA instead chose to substitute its policy judgment instead.

Policy Areas Where EPA Chose to Disregard the Fuel Economy Policy Set by Congress

AREA OF INCONSISTENCY	CAFE	CARB	EPA
Statutory Limit on Length of Rule	5 years	No Limit	No Limit
Import/Domestic Fleets Separate?	Yes	No	No
Transfer of Credits Between Car and Truck Fleets Allowed?	Limited	Unlimited	Unlimited
Production of E-85 vehicles (FFV credit)	Allows credit for manufacturing E-85 vehicles. Phased out in 2019	Automaker must prove motorist is using E-85 to receive credit	Allows credit for manufacturing E-85 vehicles until 2015. In 2016, automakers must prove motorist is using E-85 to receive credit
Exemption for Major Manufacturers? (see charts)	No	Yes	Lower standard for some till '15; lower standard for others till '16; no standard for small automakers
Potential exemption for new entrants (e.g. Chinese automakers)?	No	Yes	No (75 Fed. Reg. 25418)

[11] In fact, under CAFE, fuel economy is actually calculated by measuring a vehicle's carbon emissions and then converting those emissions into MPGs using a simple mathematical formula. Recognizing this fact, both EPA and NHTSA have acknowledged that "the only way at present to reduce tailpipe emissions of CO_2 is by reducing fuel consumption." 74 Fed. Reg. at 49632. Not surprisingly, every single vehicle technology identified by CARB to reduce tailpipe CO_2 emissions was also cited by NHTSA as a way to improve fuel economy (see Appendix C).
[12] 549 U.S. at 532 (2007).

Supporters of the three-different-fuel-economy-regimes model seem to justify EPA's contrary policy choices as superior to what Congress enacted. For example, despite a statutory restriction that the CAFE program can only be set in five year increments, EPA and CARB plan to propose a rule this year setting a fuel economy standard all the way to 2025. A CARB official contends the 5-year restriction makes for automakers, "long-term product planning, investment and capital decisions more difficult."[13] Even if the CARB official's statement were true, setting fuel economy rules beyond 5 years is simply EPA and CARB substituting their policy judgment over the law Congress wrote.

Moreover, it is my understanding that no automaker has firm product plans beyond 2020. Essentially, this means that regulators will be taking educated guesses on what new car buyers will want to buy fourteen years from now. Of course, automakers will have to build to the specifications the regulators dictate, and I hope, as an auto dealer who has to meet market demand every day, that they guess right. I cannot possibly tell you what consumers in my market will want to buy 14 years from now. This one provision demonstrates, in a nutshell, one of the greatest drawbacks of the three-different-fuel-economy-regimes model – it gives regulators license to override congressional policy. Congress included the 5-year limitation in the Ten-in-Ten Fuel Economy Act precisely to prevent regulators from guessing what automakers planned to produce years into the future. Congress understood that the regulatory process has to be linked closely with the commercial reality of meeting consumer demand, rather than being pushed into the realm of theoretical possibilities. Unless Congress acts, we will have a situation where regulators in 2011 are proposing a fuel economy standard for 2025 – which is exactly the situation Congress legislated to avoid.

Supporters of the three-different-fuel economy-regimes model argue that only EPA can regulate refrigerant GHGs from vehicle air conditioners. This authority is then used to justify the redundant federal regulation of fuel economy, which is the same as regulating CO_2 tailpipe emissions. There is, however, a simple solution to this situation that does not entail the double regulation embedded in the National Program: have EPA regulate refrigerant GHGs utilizing the authority the agency already has under Title VI of the Clean Air Act with regard to these refrigerants. There is no reason why EPA cannot regulate refrigerant GHGs contained in vehicle air conditioners while NHTSA regulates fuel economy/tailpipe CO_2. Such an arrangement would achieve the Administration's policy goals, as this question for the record from Senator John Thune to Secretary Ray LaHood demonstrates:

Q. "Under authorities that existed before the Massachusetts vs. EPA litigation, and still exist to this day, NHTSA was perfectly capable of increasing CAFE standards. In fact, even in the context of the tailpipe rule, NHTSA involvement accounts for 34.1 of the 35.5 miles per gallon mandate. Furthermore, it appears to be the case that EPA could make their 1.4 miles per gallon contribution to these environmental improvements under the separate authority of Title VI of the Clean Air Act. Would you agree with this statement?

A. Yes..."[14]

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[13] *Hearing on H.R. __ the Energy Tax Prevention Act of 2011 before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce,* 112th Congress, 1st Sess. (February 9, 2011)(statement of James Goldstene, executive officer, California Air Resources Board)

[14] *Hearing on Toyota's Recalls and the Government's Response before the Senate Commerce, Science and Transportation Committee,* 111th Congress, 2nd Sess. (March 2, 2010)(question for the record by Sen. John Thune to U.S. Department of Transportation Secretary Raymond LaHood).

If the Administration were to adopt this approach, Justice Stevens' quotation regarding "the two agencies administer[ing] their obligations and yet avoid[ing] inconsistency" would finally be realized. More importantly, the fuel economy system passed in 2007 could be implemented the way Congress intended.

* * * * *

Mr. Chairman, the vigorous CAFE program Congress designed, coupled with EPA regulation of vehicle air conditioners, results in approximately the same amount of fuel saved and greenhouse gases reduced. State regulation is completely unnecessary and ineffective. EPA regulation of tailpipe CO_2 is also redundant. It is now incumbent on Congress to impose order on these conflicting regulations and have the final say on policy.

This is not an esoteric debate simply about bureaucratic turf. This is all about jobs and about whether automobiles in the future will still be affordable to my customers. The National Program fuel economy regulations that were jointly issued by NHTSA and EPA last year will cost the American people $51.7 billion. The next rulemaking, which is apparently being rushed through the process (under law, NHTSA has until 2014 to set standards for 2017 and beyond) is likely to be the most expensive auto regulation ever. It is important that the *structure* of the fuel economy program is sound, so the *stringency* of the fuel economy standard will be correct.

In closing, I want to emphasize that we at NADA fully appreciate the complexity of this public policy challenge. We urge the subcommittee to return to one true national standard for the reduction of CO_2 and the increase of fuel economy. NHTSA has been regulating fuel economy for over 30 years, and we are confident their regulatory program will provide consistent increases in fuel economy that consumers are willing to buy, because that's what the statute Congress designed was intended to do. The faster that we can turn over the nation's aging auto fleet, the faster that we will increase energy security, enhance passenger safety, improve environmental quality, and generate the economic activity that is necessary for the restoration of the employment base within the automotive industry. Even after the Great Recession, auto retailing is a still a significant percentage of our national economy. As a practical matter, any sustainable economic recovery must go through our showrooms across the nation.

Thank you for your consideration.

APPENDIX A: History of California's Fuel Economy Program

- Carbon dioxide (CO_2) is the primary greenhouse gas that will be regulated – just like in the federal CAFE program.
- Regulating carbon dioxide is equivalent to regulating fuel economy. In fact, EPA measures carbon emissions from the tailpipe to determine the fuel economy of new vehicles.
- Federal law prohibits states from setting fuel economy standards.
- To implement these standards, California needed to apply for a waiver from the Environmental Protection Agency (EPA).
- 2002: The California legislature passed AB 1493, which directed the Air Resources Board (CARB) to create a regulation to reduce greenhouse gas emissions from motor vehicles. In 2005, CARB promulgated the regulation for MY 2009-2016.
- 12/07: EPA announced its intention to deny California's waiver. In March 2008, EPA formally denied the waiver. While EPA had previously granted waivers that dealt with local or regional air quality, GHG pollution is neither unique to California nor caused in significant part by air quality unique to California.
- 1/21/09: CARB petitions EPA for reconsideration of the California waiver denial to establish its own fuel economy regime in California.
- 5/19/09: The "National Program" is announced. In exchange for EPA granting the waiver, CARB will enforce its fuel economy regulation for model years (MY) 2009-11 but accept federal enforcement for MY 2012-16. CARB officials agree to a federal standard <u>higher</u> than the CARB standard. Later that day, a CARB official tells the press CARB is already working on its own fuel economy standards for MY 2017 and beyond. (Reuters, 5/19/09)
- 7/8/09 – EPA grants the California waiver, allowing CARB's patchwork fuel economy regime to be enforced. Other states can adopt CARB's regime and fourteen states and DC have done so. Automakers must comply with both.
- 3/3/10 -- A CARB official indicates that CARB plans to set fuel economy standards until 2050.

Appendix B: The Obama CAFE Standard is Higher Than California's Standard

Combined Industry Average Fuel Economy for Cars and Light Trucks (In mpg)

Sources: CARB, "Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFE Standards and California, An Enhanced Technical Assessment," Feb. 25, 2008, Table 6, page 10; 75 Fed. Reg. 25330 (May 7, 2010)

Model Year	CAFE	CARB
2011	27.6	26.7
2012	29.7	29.5
2013	30.5	29.9
2014	31.3	30.4
2015	32.6	31.3
2016	34.1	32.3

Appendix B: Is CARB's Regulation "Related to" Fuel Economy?

Automotive Technologies	Identified by NHTSA to Raise Fuel Economy	Identified by CARB to Decrease GHGs
Cylinder deactivation	✓	✓
Six-speed automatic transmission	✓	✓
Automated Shift Manual Transmissions	✓	✓
Variable valve timing and lift	✓	✓
Turbocharging	✓	✓
Stoichiometric Gasoline Direct Injection	✓	✓
Integrated Starter-Generator	✓	✓
Camless valve actuation	✓	✓
Homogeneous Charge Compression Ignition	✓	✓
Low-leak air conditioning		✓
Source: 73 Fed. Reg. 24396 (May 2, 2008). *CARB, Report to the Legislature and the Governor on Regulations to Control GHG Emissions From Motor Vehicles, pages 7-8, December 2004.*		

Mr. WHITFIELD. Thank you, Mr. McConnell.

Mr. Montgomery, you are recognized for 5 minutes.

STATEMENT OF W. DAVID MONTGOMERY

Mr. MONTGOMERY. Thank you, Mr. Chairman and members of the subcommittee.

My name is David Montgomery. I am an economist and I have been working on the topic of this hearing for more years than I like to remember. I will be discussing my own opinions today as an economist. I have formed them over many years. I have numerous publications and peer review and professional journals dealing with quantitative studies of the cost of greenhouse gas regulations and related topics. I will be happy to discuss my qualifications in questions if anyone has any questions about my ability or my objectivity on this subject.

I will say that although I am discussing my own opinions and not necessarily those of my employer or my client, I believe, in fact I am certain that the vast majority of economists working in this area will agree specifically with the points that I am making today which is basically that there will be costs to greenhouse regulations. Nevertheless, there are studies that have circulated around Washington that claim greenhouse gas regulations will increase total employment and stimulate long-term green growth. These are the claims that come from politically motivated fringe of the profession. They reach these happy conclusions by simply leaving out half of the story. They describe and count only the jobs associated with regulatory compliance and ignore all the jobs lost in the rest of the economy due to higher cost of doing business. They fail to recognize that resources are limited and that money spent with complying with regulations is money diverted away from other productive purposes.

These studies are typified by a series of reports by the Political Economy Research Institute that are sponsored by politically powerful organizations known as PERI's and the Center for American Progress. They use a simple procedure called multiplier analysis but like the philosopher's stone, turns the cost of compliance with regulations into the gold of added jobs but it is fool's gold.

If these studies used any comprehensive model of the U.S. economy it would be forced to account for where the resources expended on regulatory compliance come from. When I did that, I found that in 2015, adding even the most cost-effective forms of greenhouse gas regulation and other pending EPA regulations would increase wholesale electricity prices by 35 to 40 percent, would reduce average worker compensation by about $700 per year and would shrink all the factors of the economy. The biggest hits would be on electricity, coal and energy-intensive industries. I don't even need to repeat that the energy-intensive industries face competition industries in other countries and regions that are not bearing these kinds of added costs and that they are quite vulnerable there. Other parts of the economy, other industries would take up some of the slack for sure but on the net effect on the whole economy of these regulations would be that it would be growing less robustly.

Now, let us turn to impact on workers. Using this comprehensive approach, total worker compensation I estimate would be driven down in 2015 by about one-and-a-half percent. If that reduction in compensation were to take the form of lost jobs, you would imply the loss of close to two million jobs, not the gains claimed by green jobs advocates. Or if our variable markets work efficiently and wages adjust to lower productivity, it would be a loss of about $700 per year in compensation to each worker. Moreover, this is overly optimistic.

Regulation of greenhouse gases under the Clean Air Act will be much more costly than this. The reason is that in doing these calculations I assumed an ideal system putting a price on greenhouse gas emissions everywhere but EPA's proposal under the Clean Air Act would use command control regulations designed by bureaucrats who know next to nothing about the circumstances of individual businesses. Therefore, there orders cannot be possibly lead to solutions as cost-effective as those that managers would find with their own additions as they face the price on carbon.

It is hard for me to think of a worse design for greenhouse gas policy than Clean Air Act authorities that were designed to deal with localized emissions of trace contaminants. Not only are these an excessively costly way to bring about wholesale changes in our energy system, they will fall far short of what would have to be done to stabilize global temperatures. Pretending the EPA regulations are cost-free is only intended to distract you from designing a policy response that avoids unnecessary costs.

There are many other technical deficiencies and studies of green jobs that I have described in my written testimony but I will end with just really two simple points. Given the looseness of green accounting, calculations of green jobs might simply be adding up jobs that would exist with the EPA regulations or without them so the claim of green jobs is simply re-labeling. That clearly cannot create real economic benefits though it doesn't do any harm and that is the best case. If a new job slot is created for the sole purpose of being green then these people represent a higher cost to their employer while adding nothing to their output or revenues. If green jobs are mandated to produce goods needed only because of regulation like replacements for prematurely retired power plants, they actually subtract from the present and future economic well-being of the Nation.

Regulation might be justified if it produced environmental gain that is worth these costs but that should not obscure the fact that prematurely retiring power plants is a cost, not a benefit. Yet the logic used by green job proponents implies that the greater the unproductive investment caused by regulation, the greater its beneficial impact on jobs. If that logic was really valid, rather than seeking out cost-effective regulation we should seek out the highest cost way to achieve environmental goals. Businesses should hire as many workers that they can fit on the jobsite for every project. The result is absurd because the logic on which it is based is nonsense.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Montgomery follows:]

Prepared Testimony of
W. David Montgomery, Ph.D.
before the
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives

Hearing on EPA's Greenhouse Gas Regulations
and Their Effect on American Jobs
March 1, 2011

Mr. Chairman and Members of the Subcommittee:

I am honored by your invitation to appear today to testify on EPA's greenhouse gas regulations and jobs. I am Vice President of Charles River Associates, and an economist by profession and training. I will start with a brief word about my qualifications. My work for over 40 years has addressed economic issues in energy and environmental policy, I have published many papers in peer-reviewed journals dealing with design and economic impacts of those policies, and I was honored by the Association of Environmental and Resource Economists with their 2004 award for a "publication of enduring quality." I taught environmental economics at the California Institute of Technology and economic theory at Caltech and Stanford University. My testimony today will address the issue of job creation by means of more stringent environmental regulations, clean energy standards, and greenhouse gas regulations. I will use a study on EPA regulations that was released last month ("the PERI study")[1] as an example of how claims about "job creation" are based on an incomplete and distorted picture of the effects of regulation. My statements in this testimony represent my own opinions and conclusions and do not necessarily represent positions of my employer or any of its clients.

[1] J. Heintz et. al., "New Jobs - Cleaner Air: Employment Effects Under Planned Changes to EPA's Air Pollution Rules," Ceres and Political Economy Research Institute (PERI), February 2011.

Summary

I discuss how a study of green jobs released last month by Ceres and PERI gives a biased and incomplete picture of the effects of regulation *and* of how jobs are created. I also discuss estimates made with CRA's MRN-NEEM model of the effects of EPA's proposed greenhouse gas regulations on energy prices, employment and competitiveness.

These regulations undeniably raise the cost of doing business. Tradeoffs must be made between economic costs and environmental benefits in designing regulations, and pretending there is no cost does not help those deliberations.

The PERI study and its like predict job gains because they leave out of their calculations all the jobs lost in the rest of the economy because of regulatory costs. Indeed, the logic of the PERI report implies that the greater the unproductive investment caused by a regulation, the greater its impact on jobs. The result is absurd because the 'logic' upon which it is based is nonsense.

Using CRA's models, even highly cost-effective greenhouse gas regulations plus the other pending regulations would increase wholesale electricity prices by 35 – 40%%, reduce average worker compensation by about $700 per year, and shrink coal, electricity and energy intensive sectors of the economy. Using Clean Air Act Authorities to create a system of command and control regulations will cost far more, because they are designed by bureaucrats who know next to nothing about the circumstances of individual businesses. Therefore, their orders cannot possible lead to the same cost-effective solutions that managers would find for their own businesses when facing a price on greenhouse gas emissions.

What Is Wrong with Green Job Studies?

Five key points need to be made about the discussion of jobs and other economic impacts found in reports like those done by PERI:

1. The serious debate in environmental policy is about how the costs of new regulations compare to their benefits, and how to design the regulations to minimize cost, uncertainty and disruption. Claims that regulations that raise the cost of doing business will create new jobs are, at best, a sideshow. Such claims only distract attention from the difficult tradeoffs that must be made between costs and benefits. "Green jobs" is not a subject that leading economists have usually taken seriously enough to criticize in professional journals.[2] I hope that this neglect will change because studies like the one that I address today command far more influence in the political sphere than they merit analytically.

2. The experience of the past decade has proven that environmental standards or clean energy mandates will *not* create industries in the United States that will export clean technology to the rest of the world. To the contrary, the cost of such mandates is borne where they are imposed, but the equipment may well be produced by workers in other countries. For instance, in 2008 U.S. wind turbine imports were $2.5 billion and exports were $22 million; less than half the wind turbines installed in the U.S. in 2007 were manufactured by U.S. companies.[3] China is becoming the world's largest manufacturer

[2] A notable exception is a profound critique by a former member of the Council of Economic Advisors and Dean of the Sloan School of Management at MIT, Richard Schmalensee, "The Costs of Environmental Protection" in *Balancing Economic Growth and Environmental Goals*, Washington: American Council for Capital Formation Center for Policy Research, 1994, pp. 55-80. The issues have not, unfortunately, changed much since then. See also a thorough and accurate critique by Morris, Bogart, Dorchak and Meiners, "Green Jobs Myths," University of Illinois Law and Economics Research Paper Series No. LE9-001

[3] USITC, Wind Turbines: Industry and Trade Summary, Office of Industries, Publication ITS-02.

of wind equipment,[4] and exporting that technology to the U.S. U.S. solar manufacturers, including some of the technologically advanced, are moving to China to manufacture the solar arrays.[5] German experience has been similar; its huge subsidies for wind energy largely drew electric power from Denmark where the generation capacity had already been installed. And now Vestas (Denmark's largest wind producer) recently closed all or most of its Danish manufacturing, despite the large EU demand for such technologies.

- In contrast to these facts, PERI's calculations are critically dependent on the assumption that 100% of the equipment purchased with mandated investments will be manufactured in the United States.

3. The critical error, epitomized by PERI, and common to all the studies in the genre, is their failure to balance the jobs lost in the rest of the economy against those that may be gained as a result of the specific mandated investments.

- The PERI study calculates jobs associated with newly mandated pollution control equipment and new generation units that prematurely replace existing generation forced to retire by the regulations. It ignores the increase in the cost of electricity caused by this policy and the effect of that higher cost on household real incomes, wages, productivity, investment in other sectors and economic growth.

Two decades ago, Harvard economists Dale Jorgenson and Peter Wilcoxen found that pollution control expenditures required by the Clean Air Act reduced total productivity-

[4] "With their government-bestowed blessings, Chinese companies have flourished and now control almost half of the $45 billion global market for wind turbines. The biggest of those players are now taking aim at foreign markets, particularly the United States, where General Electric has long been the leader." Keith Bradsher, New York Times, Dec 14, 2010.

[5] Edward L. Glaeser: Why Green Energy Can't Power a Job Engine - NYTimes.com http://economix.blogs.nytimes.com/2011/01/18/why-green-energy-cant-power-a-job-engine/?ref=business

enhancing investment, raised costs to households and businesses, and reduced growth in labor productivity, wages and employment. Their study remains the classic example of how leading economists assess the economic impact of environmental regulation.[6] It found that regulation requires investments in pollution control equipment, or in replacing powerplants without producing more electricity. These investments use resources that would otherwise have added to the economy's capacity to produce more goods and services. Both the real income of consumers and the rate of economic growth fall. Productivity growth is reduced because the industries being penalized by higher energy and environmental costs were those with higher-than-average rates of technological progress and productivity improvement. The effect of Clean Air Act regulations was to shift investment into less dynamic industries, thus reducing the overall rate of technical progress and productivity improvement. And lower productivity growth means lower growth in income and wages. Overall Jorgenson and Wilcoxen find that a 2.6 % reduction in GDP in the 80s was due to environmental regulation, and a full 3% by 1995 when the Clean Air Act Amendments are fully phased in.

Of course, any final assessment must balance environmental gains against the loss of economic output. Mandates may enhance public health, lower property damage, or preserve aesthetic values. And these gains are the reasons to consider them. The fallacy arises when the mandated change in the pattern of investment is mistaken for a source of net gains in jobs and output.

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[6] Dale W. Jorgenson and Peter J. Wilcoxen. "Impact of Environmental Legislation on U.S. Economic Growth, Investment, and Capital Costs" *U.S. Environmental Policy and Economic Growth: How Do We Fare?* (Washington, D.C.: ACCF Center for Policy Research, March 1992.

4. Green job studies have averred that environmental regulations and policies to reduce greenhouse gas emissions will help to bring the economy out of the recession;[7] these claims are false. They have also claimed, with equal lack of economic logic, that greenhouse gas regulations will stimulate long term economic growth.[8] All such assertions rest on one or more basic fiscal policy mistakes.

   - First, they ignore the timing of proposed policies relative to the business cycle. One of the first principles of fiscal policy to counter recessions is to make sure that funds are expended quickly, and the most common political mistake is to authorize spending that will only hit its peak after the economy is well on the way to recovery. That mistake in timing means that the opportunity to help the economy out of the recession is missed, and that when spending does occur it fuels inflation and drives out other, more productive investments. New regulations on electric utilities fail this test. Even if the investments assumed by PERI did take place the expenditures would still largely be made after even pessimists think the economy will be well on the way to recovery. In that case, workers in the pollution control and electrical equipment industries will have to be drawn away from other jobs, just as the mandated investment will be drawn away from other areas where it would contribute to economic growth. The total result is no net job gain and an overall drag on the economy.

   - Second, even if the expenditures mandated by EPA regulations were timely, the benefits of economic stimulus cannot be attributed to those regulations. As PERI

[7] R. Pollin, H. Garret-Peltier, J. Heintz, and H. Scharber, "Green Recovery," Political Economy Research Center and Center for American Progress, September 2008.
[8] *Ibid.*, Appendix 4.

itself admitted in its 2009 report, about the same job benefits can be expected to come from any additional stimulus spending, so that job benefits do not differentiate between different kinds of spending -- except to the extent that spending on industries with low labor productivity will create more jobs than spending on industries with high labor productivity. This kind of job analysis is a sheer waste of time and resources, because every proposal for more expenditure can make identical claims. Regrettably I have contributed to that waste. When I was chief economist in the Office of the Secretary of Defense we regularly produced estimates of the direct and indirect jobs "created" by defense spending – and they were huge numbers. We didn't mention that about the same number of jobs would be "created" by spending the same amount of money on infrastructure or any number of other procurement programs, and that any differences due to assumptions about labor intensity were largely in the noise. We knew that economists justifying other procurement programs were doing the same, so that on balance we did no harm and made sure DoD was part of the game. Now we are hearing the same claims being made to justify regulatory programs, even though the whole discussion is a waste of time because it cannot justify one kind of spending over another. In a slack economy, any increase in spending will create some jobs. The challenge in thinking about fiscal stimulus is to put that additional spending into the areas that provide the greatest return to the economy overall, and on purely economic grounds that is not through regulations that raise costs of doing business.

- A lesson that does emerge from PERI's work is that using environmental

regulations to promote job growth is at a very high cost per job. Taking PERI's total required expenditure on pollution control equipment and replacement generators and dividing by direct employment gives a result of $314,000 per direct job. That is an extraordinarily high price to pay to employ one person for a year, when the average employer cost across all occupations (wages plus benefits) was about $50,000 in 2010, with a high of about $100,000 for management and professional occupations and about $25,000 for service occupations. There are far more efficient ways to create opportunities than requiring U.S. businesses to bear a cost of $314,000 in investment to create one job.[9]

5. Government mandates to invest in industries or types of equipment that it deems to be 'green' amounts to nothing less than adopting a kind of industrial policy; such a course will neither speed recovery from the recession nor meet the challenges of long term growth.

    - If the policy concern is recovery from the recession, and in particular to induce businesses to invest their accumulated retained earnings, the model is what Kennedy did in 1962. He provided a temporary investment tax credit that is universally recognized as providing both economic stimulus and a significant increase in investment and the rate of productivity growth. He avoided picking winners as green jobs and green industry policies would do, and let private business do what they are best at – finding the most productive investments for the economy as a whole. Mandating investments in pollution control equipment

[9] U.S. Bureau of Labor Statistics, Employer costs per hour worked for employee compensation and costs as a percent of total compensation: Private industry workers, by major occupational group and bargaining unit status, September 2011. http://www.bls.gov/news.release/ecec.t05.htm

and replacing existing generating capacity cannot possibly achieve economic benefits as large or as long lasting as that temporary investment tax credit did.

- Once the economy recovers from the recession, we have to recognize that new environmental regulations cannot increase aggregate employment. Labor and capital employed in pollution control and replacing existing generation is not available for producing other goods and services in a fully employed economy. Although my colleagues and I are still in the process of modeling the impacts of impending EPA regulations, using a modeling system that is descended in the same line as the study I cited above, we have done enough studies of policies that increase the cost of power generation that I can use preliminary results to illuminate where and how EPA's new regulations will create losses throughout the economy that more than offset any gains for specific industries that receive new orders because of EPA regulations.

In the remainder of my testimony, I will discuss in more detail the errors and omissions in Ceres' green job estimates and preliminary estimates of economic impacts from an analysis of EPA's greenhouse gas and other regulations that my colleagues and I now have underway.

Errors and Omissions in Detail

The PERI study bases its calculations of direct and indirect jobs on unpublished data from CRA's NEEM model. These data were derived from a single scenario for air regulations that was

commissioned by Exelon Corporation.[10] That scenario assumed low natural gas prices, perfectly functioning capacity markets and represented the effects of the CAIR regulations as proposed last year and the new proposed utility MACT. It did not address the impacts of other pending regulations affecting electric utilities, including full effects of the Clean Air Transport Rule (CATR),[11] water, coal ash, or carbon dioxide regulations. The combined effect of all these upcoming and uncertain regulations may create significant issues about electric system reliability not addressed in the Exelon report and even higher costs.

The PERI study did not include any effects of pending EPA regulations of greenhouse gases under the Clean Air Act, but in previous studies[12] PERI and CAP have claimed that limits on greenhouse gas emissions will also create large numbers of new jobs either by stimulating the economy or by causing the growth of new industries devoted to reducing greenhouse gas emission. These studies exhibited all the same errors and omissions found in the most recent study.

The study for Exelon claimed to incorporate provisions of CATR, but it in fact only represented impacts of the CAIR rule struck down by the courts, and in particular assumed that the trading program invalidated by the courts would still be implemented. Trading under CAIR would have greatly simplified the problem of maintaining reliability, making conclusions about reliability in the Exelon report suspect. The trading program would also produce a different distribution of pollution control retrofits across states, thus invalidating the conclusions of the PERI report about state-level impacts. Even with these qualifications, the treatment of reliability in the report

[10] Ira Shavel and Barclay Gibbs, A Reliability Assessment of EPA's Proposed Air Transport Rule and Forthcoming Utility MACT, December 16, 2010. Footnote 1 states that "This report was prepared by Charles River Associates for Exelon Corporation."
[11] Only the CAIR rule was included in the study, mischaracterized as CATR.
[12]

was insufficient to properly identify potential system-level reliability concerns. That is, the report did not include the kind of power flow modeling and uncertainty analysis used in the electric power industry to identify risks of service interruptions that could be greatly increased by a massive replacement program.[13]

Additionally, the report was not designed to address the full range of potential impacts of EPA regulations. It did not discuss the cost of providing reliable electricity supply under the new regulations and its conclusions have not been tested under alternative assumptions. The report considered only one set of assumptions about highly uncertain factors, which include but are not limited to natural gas prices, performance of capacity markets, and discretionary actions by EPA. Without examining alternative scenarios to determine whether different assumptions would lead to different conclusions, it is impossible to support robust conclusion about the likelihood of adequate capacity or the magnitude of likely costs.

In this report, CRA's NEEM model concluded that there would be significant retirements of coal-fired powerplants that would otherwise have remained in service for several decades as a result of the CAIR and CAMR rule. Replacing 39,000 MW of prematurely retired capacity[14] and installing mandated pollution control equipment was estimated to involve about $200 billion in utility capital expenditures between 2010 and 2015.[15] PERI took these capital and (in a separate calculation) O&M expenditures, allocated them to purchases from specific industries, and then

[13]These risks were discussed extensively in hearings this year before the Colorado Public Utilities Commission on implementation of the Colorado Air Quality and Clean Jobs Act.
[14] Shavel and Gibbs, p. 4.
[15] These numbers were not reported in the published Exelon report, but were cited by PERI. The PERI report describes annual job creation between 2010 and 2015, but it is highly unlikely, even if all their other invalid assumptions were correct, that the $200 billion investment would be expended evenly through 2011 and 2015. Since the rules are not yet final, orders are likely to be delayed and actual construction bunched up in the later years -- if indeed there is enough time to comply with the mandates by 2015 in any event.

expanded the direct output and job effects to indirect jobs with a simple multiplier calculation.

Neither the report for Exelon nor PERI discuss the impact of this massive increase in capital expenditures on the credit ratings and cost of capital for utilities, which will translate directly into increased costs of electricity and may make achieving this level of expenditures by 2015 more difficult than they assume. Moreover, neither report mentions the rate increases that consumers will suffer as a result of these mandated expenditures by utilities, even though those rate impacts are reported in the standard output tables from the NEEM model. And since only the electric sector NEEM model was used, no account was taken of how these price increases will affect the rest of the economy, the standard of living of households facing increased costs of electricity and other goods and services, or the reduction in investment elsewhere in the economy as net investment is diverted from other industries into pollution control and generation equipment to replace prematurely retired powerplants.

Net versus direct jobs

Any study that estimates only the jobs created by a policy is grossly misleading. This is a well-known and common error in the kind of multiplier analysis based on input-output tables that was done by PERI. PERI's study tries to work around this truth by mentioning the loss of a small number of jobs associated with operation of retired coal-fired powerplants, though I do not see where those jobs were deducted from their direct job estimates. In any event, jobs in coal-fired powerplants are the smallest part of the story. Why PERI did not include the decline in coal production and coal mining employment that goes along with replacing coal-fired generation with other energy sources is a mystery. But this too is only a small part of the story. The important story is that consumers will have less real income to spend, because of increases in the

cost of electricity and of all other goods that are produced by means of electricity. Worker productivity will rise more slowly, as investment is diverted away from productivity-enhancing investments, so that wages that employers can afford to pay will fall relative to what they otherwise would have been. Energy-intensive U.S. industries will lose market share to overseas industries not subject to these requirements, and will therefore shrink in size. These impacts will lead to job losses in all the rest of the economy, as the effects of more costly energy ripple through the economy.

A highly respected regional economist[16] has pointed out that proper use of such models requires that both the positive and negative impacts of a proposed policy must be addressed. He gives an example of how looking only at positive impacts biases the results to find that any government expenditure will create additional jobs. A study by KPMG found that expanding a Chicago convention center would create a net 6000 new permanent jobs. When an academic economist redid the study using all the same assumptions as KPMG except for taking account of jobs displaced by the expansion and increased local taxes to pay for the project, she found a net loss of 348 jobs. Mills points out that the most common mistake in these job studies is assuming that the project is paid for by money from outside the region where it is built. He comments that "the zero-sum character of outside money multipliers should be taken into account in federal spending programs" because payment for those projects comes from within the U.S. economy. PERI makes the same error by examining only industries that receive the orders for pollution control and new generating equipment and ignoring where the investment comes from and how other industries are affected.

Ignores likelihood of renewable energy equipment being sourced overseas

[16] Edwin Mills, "The Misuse of Regional Economic Models," *Cato Journal*, XII:1, 1993.

All of PERI's calculations assume that 100% of the investment mandated by new air regulations will be manufactured in the United States -- as will all of its components and raw materials. This assumption is manifestly incorrect, and the omission makes it likely that even PERI's calculations of direct jobs are grossly exaggerated. As discussed earlier, the U.S. has been importing a large share of its new wind turbine equipment, U.S. wind manufacturers are outnumbered in the global market, and U.S. solar industries are moving offshore, .

Jobs not a good measure of economic benefit

To be sure, by mandating the use of the newer, more expensive energy sources and pollution control systems, new air regulations would create some new jobs. The difficulty is that the number of these new "green jobs" must be offset by the number of other jobs that the regulations would destroy elsewhere in the economy. Calculating "net" jobs immediately leads into the problem of how "jobs" are counted. There are many different kinds of jobs, with different skills, working conditions, and most importantly pay. I have discussed how diverting workers into jobs that do not contribute to producing goods and services that people enjoy will simultaneously reduce the overall standard of living. It is also possible to play games with hours of work, as the French have led the way in doing. A French government seriously proposed to limit the work week for any individual to 32 hours in order to create 20% more jobs.

The entire job debate is further confused by the lack of a clear definition of a "green job." For example, how would one classify a job supporting coal-fired power with carbon capture, or nuclear generation? The indirect jobs contained in the PERI calculations include, for example, steel workers producing materials that go into pollution control equipment and turbines. But when a slab comes out of a steel mill, it could equally well be fabricated into a part for a

scrubber or a part for a coal-fired boiler. So when investment switches from building new coal-fired powerplants to building scrubbers, some number of steel workers find themselves in "green jobs" even though no one is doing anything different in the mill (and some lose their jobs because of higher energy costs and foreign competition). Regardless of these definitional concerns, however, the fact remains that workers in aggregate will face lowered earnings potential under a policy that pulls investment away from expansion of capacity to produce final goods and services and raised energy costs. The net effect of lower productivity also ultimately translates into overall losses in average household spending power, and into reductions in GDP relative to what they would be if no such policy were in place. I turn to those cumulative macroeconomic effects in my final comments.

Talk of "jobs" diverts attention away from the important problem of how much workers earn to a largely irrelevant activity of counting heads. The question that we address in CRA's modeling of economic impacts is whether the balance of the many economic effects of EPA regulations is to increase or decrease total labor income in the United States, and the answer is that total labor income will decrease. The difference between our findings and PERI's estimates of large numbers of green jobs arises because the latter estimates are answering only half of the question about net jobs. Those who claim there will be a job-creating attribute to a policy such as new air regulations have asked whether it will require workers to build and install pollution controls and build and operate power plants that replace prematurely retired units. Of course it will, but the remaining question is what will happen to employment in other industries, some of which are directly targeted by the regulations – such as fossil fuels production – and some of which will shrink because consumers can no longer afford their full production.

Economic models can do a good job of determining whether total worker compensation will rise or fall; how this will be divided into "jobs" is conceptually vague and practically very uncertain. Therefore, in our macroeconomic studies of costs and benefits of environmental regulations we have decided to stop reporting jobs altogether, and rather report whether total wage payments have gone up or down. That total can fall because wages decline, the number of hours worked declines, or both. It is not possible to distinguish which would happen with any degree of precision.

If green jobs are lower-paying than the jobs they replace and require more labor per unit of output, that will just magnify the generally depressing effect of the environmental regulations on total labor income. Shifting expenditures to pollution controls and new generation might lead to two low-paid workers moving out of unemployment while one worker who was earning more than twice their wages became unemployed. Only if this were to be the predominant pattern of the impact of the policy could one argue that there would be a net increase in total jobs under the policy concomitant with the inevitable decrease in total payments to workers.

The Luddite Fallacy

There is another basic fallacy in chasing down which industry has the highest number of jobs per dollar of output, as in PERI's claims energy efficiency has 2.5 times as many jobs per dollar as oil and gas. I call it the Luddite fallacy, remembering the radicals during the early industrial revolution in England who went around smashing machines because of their belief that machines put laborers out of work. What we have learned over the ensuing two centuries is that capital deepening – increasing the amount of capital per worker – is a major driver of economic growth and of increasing productivity, and that having more output per worker is the reason that living

standards of workers have risen so dramatically in the past 100 years. Indeed, we measure productivity increase as the rate of increase in output per worker.

Studies like those done by PERI conceal their glorification of low labor productivity by talking about favoring industries that employ more workers per dollar of output. But driving the economy toward industries with more workers per dollar of output is a choice to favor industries with lower labor productivity over industries with greater labor productivity. Reducing average labor productivity translates directly into lower output and slower economic growth, since the basic equation for economic growth is that growth in income is the product of the rate of increase in labor productivity times the rate of growth in the labor force. Moreover, since wages are set by the marginal productivity of labor, shifting to industries with lower labor productivity leads directly to lower wages. This is exactly the point made in rigorous fashion by Jorgenson and Wilcoxen.

Jobs are simply not a relevant measure of economic benefits. Indeed, the more workers it takes to produce something, the more it will cost and the less of it the nation will be able to afford. There is an opportunity cost to diverting the labor force to producing pollution control equipment and replacing useful electric powerplants. Labor is a scarce resource and diverting labor to less productive activities harms workers first, by causing wages to fall, and further limits what the economy overall can produce.

Reductio ad absurdum – the higher the cost, the greater the benefit

The simple multiplier model used by PERI assumes no change in relative prices and no opportunity cost of diverting capital and labor from other uses. The results of its calculations are very predictable and linear. If an investment of $200 billion creates about 1.5 million jobs, then

an investment of $400 billion would create 3 million, and on and on. The multipliers used by PERI would extrapolate gains forever. If PERI had used estimates of investment based on studies that find environmental regulations will be even more costly, it would have illogically concluded that such costly regulations would be even more beneficial to jobs, and by extension to the economy.

From this it follows that if EPA were to tighten the screws even more than under its current proposals, the result would be far more jobs. If compliance with EPA rules, or the cost of renewable generation equipment, were to rise above levels assumed to derive the PERI investment number, job benefits would increase again. This is clearly an absurd result, but it is the inevitable consequence of using an unsuitable approach -- simple multiplier analysis -- to address economy-wide changes in prices, supply and demand. Of course, this is because PERI's calculations ignore the increasing losses imposed on the rest of the economy and the drag on energy-intensive industries like iron and steel whose jobs will be moving overseas as production costs in the U.S. rise relative to competitors.

Preliminary Estimates of the Cost of New EPA Greenhouse Gas and Other Regulations

For this testimony, I have used CRA's full MRN-NEEM modeling system to provide preliminary estimates of the full economic impacts of the full set of impending EPA regulations that would affect the electric power sector, including greenhouse gas regulations under the Clean Air Act. This is still ongoing and precise results may change as we examine additional scenarios and alternative assumptions. Therefore, I will talk only in round numbers and emphasize the nature and direction of impacts, which I am confident are correct and robust results. I will provide the committee with a full report on these findings after our analysis and review are completed.

Again, the results may change in detail but I am confident that they will be quite similar to the preliminary results I can discuss today.

We have been able to extend the analysis I discussed in testimony before the Senate Subcommittee on Green Jobs and the New Economy on February 15th to include the impact of greenhouse gas regulations affecting the electric power, energy-intensive, and refining industries. That analysis confirms the logical finding that regulation of greenhouse gases under the Clean Air Act would impose even higher costs than air, water, ash and mercury regulations. Even if EPA were to use a system of regulation like a carbon tax that would minimize adverse impacts, a tax that started at $20 per ton of carbon would increase wholesale electricity prices permanently by an additional 35 – 40% percent, reduce average worker compensation by 1.4% (or $700) in 2015 and cause losses in output of coal mining, electricity and energy intensive sectors.

The full MRN-NEEM modeling system incorporates the NEEM model used for Exelon, but it links that model to a full, state-of-the-art computable general equilibrium model of the U.S. economy.[17] The computable general equilibrium model represents the full interindustry structure of the U.S. economy, accounting for the output of 15 industries, investment, consumption, wages and prices of all goods and services consumed by households. It is a dynamic model that traces out the growth of the U.S. economy from 2010 to 2050. Each industry is represented by a production function that determines the amount of labor, capital and natural resources required to produce a unit of output. The model solves for supply, demand and prices in every market, and determines the amount of investment that will be forthcoming given household savings behavior and the prospective return on investment. The model also takes into account the opportunity cost

[17] This model has been described frequently in peer-reviewed publications, the most recent of which is S. Tuladhar, M. Yuan, P. Bernstein, W D Montgomery and A. Smith, "A Top-down Bottom-up Modeling Approach to Climate Change Policy Analysis." *Energy Economics*, Vol. 31 (2009) Supplement 2.

of diverting labor and investment from one use to another.

The methodology used by PERI is based on no such model. Instead it uses a static "multiplier" to calculate the number of jobs in other industries required to support one job employed directly to produce and use pollution controls or new generating equipment. The PERI "model" is thus just a list of numbers, one for each industry. These multipliers have the following deficiencies, in comparison to a CGE model like MRN-NEEM.[18]

- They take into account none of the changes in the structure of the economy that will be induced by higher energy prices,
- They ignore the effects of higher electricity costs on the return on capital investment and willingness to invest
- They ignore welfare losses to consumers who are forced to consume less energy because of its higher price
- They completely ignore the opportunity cost of diverting labor and investment from one use to another.

Investment diversion and impacts on productivity growth

EPA's pending regulations would divert resources now used to produce goods and services into the task of producing pollution control equipment, replacing existing powerplants, and changing fuels and processes in industry. These mandates will raise electricity prices to consumers and

[18] Other models of this type, that have produced qualitatively similar results to MRN-NEEM, include the Jorgenson-Wilcoxen model mentioned above and the Environmental Protection Agency's own ADAGE model. All these models would produce results qualitatively similar to those of CRA's model and the opposite of PERI's results.

businesses, leaving them less to spend on other goods and services causing decreases in demand for the quantities of goods and services produced by the economy. When labor and capital are diverted to uses that do not produce economic output, labor productivity must fall -- hours of work will remain the same or increase but the goods available for workers to consume will fall. Business activity is likely to contract relative to the levels that would have prevailed without policy-induced energy cost hikes. The demand for labor would weaken because employers would need to spend less on labor in order to supply the reduced amount of goods and services demanded by consumers. As a result, payments to labor are projected to decline relative to that which would have prevailed without the higher energy costs. This will be reflected in a combination of less employment, and lower wages for those workers not losing their job.

Impacts on electricity prices

Electricity prices will increase under the new EPA regulations, relative to what they would have been otherwise. Adding additional pollution control equipment and replacing fully depreciated powerplants will unquestionably drive up rates in jurisdictions with cost of service regulation, and higher costs of maintaining adequate capacity will drive prices up in deregulated generation markets as well.

The introduction to the recent PERI report implies that environmental regulations have no effect on prices by claiming that electricity prices have been stable in real terms since the CAA was introduced in 1970. This statement reveals clearly the errors that are propagated by failing to ask the question of what would have happened without those regulations. Prior to the Clean Air Act, electricity prices had been falling in real terms for decades, as improving generation technology and economies of scale drove costs down in real terms. The advent of environmental regulation

in the 1970s reversed that trend, as described in Paul Joskow's justly famous analysis[19] and in the work of Jorgenson and Wilcoxen.

Competent analysis of the costs of regulation always involves constructing a reference case, without the policy to be analyzed, and comparing it to a case with identical assumptions except for the introduction of the policy. Results from such a comparison unambiguously and universally show that the policies analyzed by PERI increase electricity costs and rates.

Our preliminary analysis indicates that the full set of measures now proposed by EPA, including greenhouse gas regulations and the Clean Air Transport Rule (CATR), utility MACT, water, and coal ash regulations could increase real (i.e. before inflation) wholesale electricity prices by 35 – 40% from 2015 onward. Most of this impact is attributable to the greenhouse gas regulations.

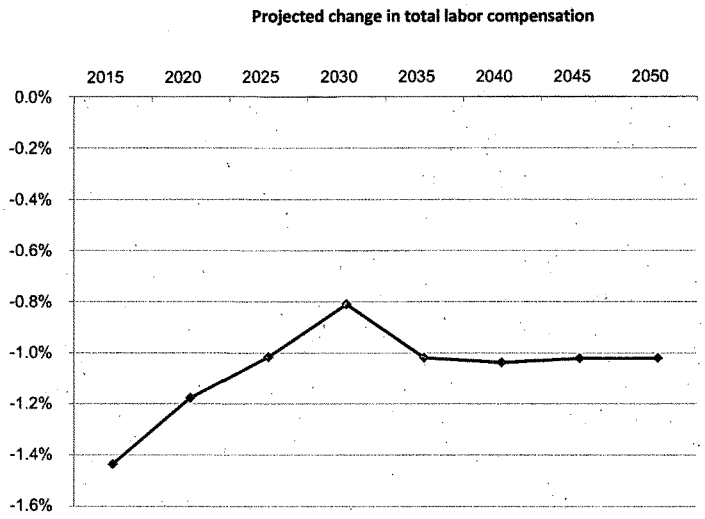
Net effects on employment and wages

Because these estimated impacts are based on the general equilibrium requirement that total payments to labor must fall to the new, lower level that can be supported by the reduced overall productivity of the entire economy, *they are necessarily inclusive of all increases in so-called "green jobs" that will be created as a result of the proposed legislation.*

We find that total labor compensation would fall by about 1.4% in 2015 under the cumulative impact of EPA regulations, higher electricity costs, reductions in industry competitiveness and lower worker productivity. This translates into a decline of about $700 per year in average worker compensation, based on the BLS estimate of average compensation per worker of about $50,000 in 2010. This decrease would become smaller as the shock of the immediate regulatory

[19] P. Joskow, "Inflation and Environmental Concern: Change in the Process of Utility Price Regulation." *Journal of Law and Economics*, XVII:2, October 1974, pp. 291-327.

onslaught, but the permanent effect would be the equivalent of a reduction of about $500 per year in current compensation. The permanent impact on labor compensation is due to a slowdown in productivity growth resulting from the diversion of investment to comply with tighter environmental regulations.



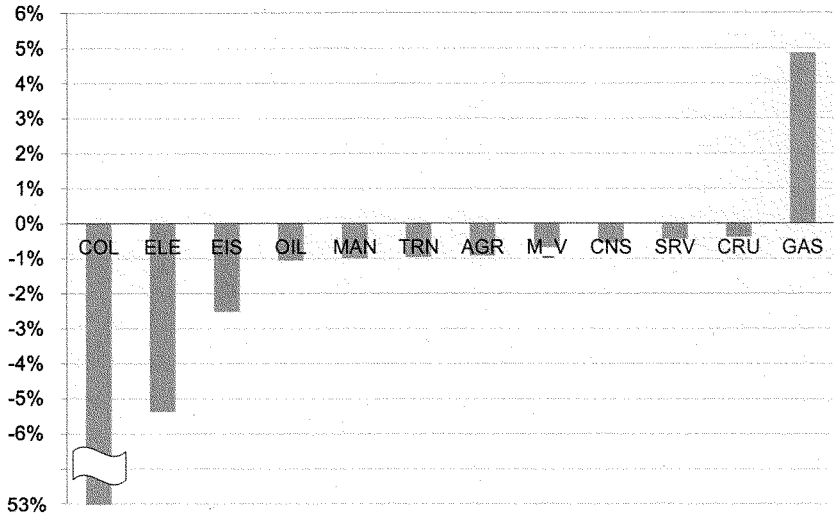
Source: CRA Model Results, 2011

Competitiveness of U.S. industries

Employment impacts will also vary by industrial sector and will largely be proportional to sectoral output in the short run. The graph below shows the change in output by sector that would be caused by the new EPA regulations including greenhouse gas regulations. Since proposed greenhouse gas regulations under the Clean Air Act apply mainly to electricity and energy intensive industries, we also find that the impacts are even more concentrated on coal mining, electricity, and energy intensive sectors. Coal mining declines as coal-fired powerplants

are retired, and electric output falls as higher prices drive demand down. Energy-intensive industries would be affected directly by greenhouse regulations as well as by higher electricity prices, making their competitiveness relative to other countries decline and demand for their products fall. Natural gas demand would rise significantly to replace coal, putting additional upward pressure on natural gas prices.

Projected percentage change in real output by sector in 2015



COL: Coal Extraction; **ELE**: Electricity; **EIS**: Energy Intensive Sectors; **OIL**: Refined Petroleum Products; **MAN**: Manufacturing; **TRN**: Commercial Transportation; **AGR**: Agriculture; **M_V**: Motor Vehicles; **CNS**: Construction; **SRV**: Services; **CRU**: Crude Oil Extraction; and **GAS**: Natural Gas Extraction.

Source: CRA Model Results, 2011

Jorgenson and Wilcoxen also found that electricity and primary metals were the industries most affected (negatively) by the Clean Air Act Amendments of 1990, and that primary metals were the third most affected by prior environmental regulations (behind electric utilities and coal

mining).[20] They estimate that the effect of just the Clean Air Act Amendments of 1990 was to reduce output of the U.S. primary metals industry -- which includes iron and steel -- by about 3.5%, leading to a corresponding loss of jobs in the industry. This was the largest percentage impact on any industry, including electricity.

Moreover, even our estimates of impacts on energy intensive sectors on average are gross underestimate of potential impacts on specific subsectors like the upstream iron and steel industry -- blast furnace and electric arc furnace operations. We did a study several years ago of the effects of higher energy costs on the U.S. basic iron and steel industry. It revealed how easy it is to underestimate the magnitude of competitive effects of increases in electricity prices on a homogeneous commodity like steel that is traded internationally. When we analyzed impacts on the entire iron and steel industry, as conventionally defined, we found impacts of a $40 carbon price to be about the same as the effects that Jorgenson and Wilcoxen attribute to environmental regulations through the Clean Air Act Amendments. But when we broke out the upstream iron and steel industry we found that over 40% of U.S. capacity would be forced to close immediately due to competition from overseas producers not subject to such cost increases.

Added Costs of Greenhouse Gas Regulation under Clean Air Act Authorities

Finally, regulation under the Clean Air Act is likely to take an even more costly course. Our analysis and that of just about every other modeling team has found that command and control regulations EPA must use under Clean Air Act authorities greatly increase costs above even the levels that carbon taxes or a cap and trade system would impose. The reason in simple terms is that command and control regulations are designed by bureaucrats who know next to nothing

[20] D. Jorgenson and P. Wilcoxen, The Economic Impact of the Clean Air Act Amendments of 1990, The Energy Journal, Vol 14, No. 3, 1993

about the circumstances of individual businesses. Therefore, their orders cannot possible lead to the same cost-effective solutions that managers would find for their own businesses when facing a price on greenhouse gas emissions. So the result is that after the Congress decided not to create a cap and trade system, the EPA is following through with an approach that would impose far higher costs to achieve similar levels of emission reduction.

Conclusion

I will conclude with a quote from Professor Schmalensee's excellent paper, "As common sense suggests, we cannot regulate ourselves to prosperity." Thank you for this opportunity to address the Subcommittee.

Mr. WHITFIELD. Thank you.

Mr. Reicher, you are recognized for 5 minutes.

STATEMENT OF DAN REICHER

Mr. REICHER. Chairman Whitfield, Ranking Member Rush, and members of the committee, thank you for the opportunity to testify.

My name is Dan Reicher. I am executive director of the Steyer-Taylor Center for Energy Policy and Finance, a joint center of the Stanford Law School and the Graduate School of Business. Prior to Stanford, I was director of climate change and energy initiatives at Google, president of a private equity firm that invests in energy projects and executive vice president of a venture-capital-backed renewable energy company, and prior to these roles I was DOE assistant secretary for energy efficiency and renewable energy and the Department's chief of staff.

I would like to make two points today. First, controlling U.S. carbon emissions along with other policy and investment measures to address climate change and advanced clean energy technology is critical to our Nation's economy, security, health and environmental quality. Second, experience over the last few decades makes clear that well-designed environmental and energy regulation far from being an economic drag can spur U.S. innovation, enhance competitiveness and often cut development and operating costs.

Regarding the first point, we can debate the relative merits of the various approaches to regulating carbon emissions but the science tells us we need to act and the vast global market for clean energy technology tell us it is in our best economic and security interest to do so. We are unlikely to see the enactment of comprehensive climate and energy legislation any time soon, therefore EPA's current authority to regulate carbon emission should be strongly supported building on the agency's solid record of air regulation over the last four decades as well as the Supreme Court's 2007 decision upholding EPA's carbon regulatory authority.

Regarding the second point, Michael Porter, a top Harvard economist and an economic policy advisor to the George W. Bush campaign has been a champion of the view that well-designed and executed regulation can induce efficiency, spur technological innovation and enhance competitiveness. What Porter calls the innovation effect makes processes and products more efficient and achieves saving sufficient to compensate for both the cost of compliance and the cost of innovation. Countries all over the world from China to Germany to Japan have committed to controlling carbon emissions through a variety of policy and investment mechanisms, and in doing so have grown a massive global clean energy industry measured in the trillions of dollars and millions of jobs that was once led by the U.S.

We can advocate this market by turning back the clock in carbon controls and related energy policy and investment or we can seize the opportunity to lead the global clean energy industry whether it is in nuclear power, or renewable energy or advanced coal technologies, or natural gas. We need look no further than China to see that clean energy technology industry largely invented and once dominated by the U.S. slipping away. As we have dithered in our country in recent years in setting energy and climate policy, China

has been working aggressively to become the world's clean energy powerhouse. The Chinese have set standards for power companies to produce more clean electricity, shut down old power plants and outdated heavy manufacturing capacity, established a program to improve the efficiency of its 1,000 most energy consuming enterprises, invested heavily in energy R&D, provided low-cost financing for clean energy projects and made major investments in the electricity gird, and importantly, set a target to reduce carbon intensity 40 to 45 percent below 2005 levels by 2020. Beyond China, other countries including Germany, Japan, South Korea and Denmark are forging ahead with ambitious clean energy policy and investment strategies and seeing significant, significant job growth as a result.

In contrast, the U.S. has largely stayed on the sidelines endlessly debating the need for an approach to a successful clean energy strategy. That is the bad news. The good news is that we can regain our leadership in clean energy. Among the solutions, we should adopt a national clean energy standard following the lead of many States that have set such standards. I would note that Congressman Barton and 16 of his Republican colleagues currently serving on the full committee supported an amendment to the American Clean Energy Security Act that included a detailed clean energy standard.

We should increase our investment in energy R&D. We should support the DOE Loan Guaranty Program that is proving pivotal in the deployment of clean energy technologies for renewables to nuclear. Over time we should replace the DOE Loan Guaranty Program with a new Clean Energy Deployment Administration that was adopted last year by the full House and by the Senate Energy Committee. We should extend federal tax credits that have been so vital in encouraging private sector financing of clean energy projects and most relevant to this hearing, we should reject the proposal to withdraw EPA authority to regulate carbon emissions under the Clean Air Act.

Mr. Chairman, I believe it is inevitable that we will put strong controls on greenhouse gas emissions. The question of U.S. carbon regulation is not whether but when and there is a significant increasing portion of the business community that agrees. A major reason they agree is that we have four decades of evidence that the federal government will implement carbon controls in a smart and cost-effective manner. For example, in 1990 power companies predicted that reducing sulfur dioxide to address the acid rain problem under the Clean Air Act would cost $1,000 to $1,500 per ton. In fact, the actual cost has been between $100 and $200 per ton.

With regard to energy efficiency, as a result of a series of federal and State standards, a typical refrigerator today uses roughly a quarter of the electricity that it did in the 1970s and actually costs less in real terms. And with regard to automobile fuel economy, in early 2009 the Administration reached an agreement with the auto industry creating a single national program for fuel economy and greenhouse gas emissions that will increase fuel economy levels in new passenger vehicles to 35-and-a-half miles per gallon, save consumers roughly $3,000 over the life of the vehicle, drive fuel consumption in new vehicles down by 30 percent and along with simi-

lar efforts globally help lower oil demand and decrease oil prices making us less vulnerable to oil price shocks from international events like those occurring as we speak in the Middle East.

Wrapping up, prior to my current position at Stanford I spent 4 years at Google. Coming from the energy sector I was struck by how innovation, investment and policy with great leadership from the U.S. federal government came together so effectively to build an entirely new game changing and job creating industry, the Internet, led by our Nation. We must take a similarly coordinated approach between the private sector and the U.S. government in order to seize the extraordinary opportunities in the next great industry, clean energy technology. If we don't get our act together between our government and the private sector other countries that are taking the long view will be the winners of this marathon. A prize worth trillions of dollars and millions of jobs hangs in the balance.

Thank you for the opportunity to testify.

[The prepared statement of Mr. Reicher follows:]

Statement of Dan W. Reicher
Executive Director
Steyer-Taylor Center for Energy Policy & Finance at Stanford University
Professor, Stanford Law School
Lecturer, Stanford Graduate School of Business
Hearing on EPA's Greenhouse Gas Regulations and Their Effect on American Jobs
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives
March 1, 2011

Mr. Chairman and Members of the Committee, thank you for the opportunity to testify. My name is Dan W. Reicher. I am Executive Director of the Steyer-Taylor Center for Energy Policy and Finance at Stanford University, a joint center of the Stanford Law School and Stanford Graduate School of Business, where I also hold faculty positions.

Prior to my post at Stanford, I was: Director of Climate Change and Energy Initiatives at Google where I helped lead the company's energy policy, investment and technology work; President of New Energy Capital, a private equity firm that invests in energy projects; Executive Vice President of Northern Power Systems, a venture capital-backed renewable energy company. Prior to my roles in the private sector I held a number of posts at the U.S. Department of Energy, including Assistant Secretary for Energy Efficiency and Renewable Energy and DOE Chief of Staff.

I would like to make two points today.

First, controlling U.S. carbon emissions – along with other policy and investment measures to address climate change and advance clean energy technology – is critical to our nation's economy, security, health, and environmental quality.

Second, experience over the last few decades makes clear that well designed environmental and energy regulation, far from being an economic drag, can spur U.S. innovation, enhance competitiveness, and cut costs.

Regarding the first point, we need a comprehensive commitment to low carbon/no carbon technologies that involves robust public and private R&D, significant and well-conceived finance mechanisms, reliable incentives and, yes, regulation. We can debate the relative merits of the various approaches to regulating carbon emissions – from new comprehensive climate and energy legislation to existing Clean Air Act regulation – but science tells us we need to act quickly and the vast global market

for clean energy technology tells us it is in our best economic and security interest to do so. Given the new make-up of Congress, we are unlikely to see the enactment of comprehensive climate and energy legislation. Therefore, EPA's current authority to regulate carbon emissions should be strongly supported, building on the agency's solid record of air regulation over the last four decades as well as the Supreme Court's 2007 decision upholding EPA's authority to control greenhouse gas emissions. Additionally, we should enact a national clean energy standard, building on clean energy mandates in scores of states.

Regarding the second point, experience since the 1970's – from air pollution controls to appliance efficiency standards to auto fuel economy rules – makes clear that well conceived and executed carbon regulation will not only stimulate technological innovation but can be implemented cost effectively and in many cases lead to actual decreases in the purchase, installation and operating costs of key technologies. Importantly, these controls can enhance U.S. economic competitiveness. Countries all over the world – from China to Germany to Japan – have committed to controlling carbon emissions through a variety of mechanisms and in doing so have grown a massive clean energy industry – measured in the trillions of dollars and millions of jobs – that was once led by the U.S. We can cede this market by turning back the clock on carbon controls and related energy policy and investment. Or we can seize the opportunity to lead the global clean energy industry and in the process create jobs, improve national security, and protect human health and the environment.

We must drive a strong domestic market for clean energy technology or, as history demonstrates for an array of technologies, we will lose the race internationally. To build a strong domestic market – whether it's in nuclear power or renewable energy or advanced coal technologies or natural gas – we need to do what our competitors are doing:

- Set nation-wide standards for clean energy deployment and energy efficiency improvements;
- Fund R&D aggressively;
- Provide targeted finance mechanisms for technology commercialization;
- Establish reliable incentives for manufacturing and deployment;
- Improve energy project permitting and siting processes; and
- Control carbon emissions

We need look no further than China to see the clean energy technology industry – largely invented and once dominated by the U.S. – slipping away: reactor by reactor, turbine by turbine, panel by panel. As we have dithered in our country in recent years in setting national energy and climate policy, China has been working aggressively to become the world's clean energy powerhouse. The Chinese have:

- Set standards for power companies to produce more clean electricity;

- Shut down more than 50,000 megawatts of old coal-fired power plants and a substantial amount of outdated heavy manufacturing capacity;
- Established a program to improve the efficiency of its top 1,000 most energy-consuming enterprises;
- Invested heavily in R&D;
- Provided incentives for homeowners to install solar panels and water heaters;
- Provided low cost financing for clean energy generating and manufacturing projects;
- Made major investments in the electricity grid; and
- Importantly, set a target to reduce carbon intensity 40-45% below 2005 levels by 2020. There are increasing indications that China will make these targets binding domestically in its next Five Year Plan, due out this month.

With this attention to innovation, investment, and policy – including increasing controls on carbon emissions – the Chinese are quickly becoming the dominant world player in clean energy technology. Consider:

- The Chinese are now the world's largest manufacturer of wind turbines, having vaulted past several EU nations and the US in this fast-growing clean energy technology business;
- The Chinese also recently leapfrogged the West as the world's largest manufacturer of solar panels, with six of the top ten global solar photovoltaic manufacturers now in China;
- The Chinese have 13 nuclear power plants operating today and 27 more under construction with the intention to raise the percentage of nuclear-generated electricity from 1% to 6% by 2020, and make dramatic increases beyond that point. Importantly, China is also becoming increasingly self-sufficient in reactor design and construction;
- The Chinese have plans for 140,000 megawatts of new hydropower capacity by 2015; and
- Major US companies have set up not only new clean energy technology manufacturing facilities in China, but increasingly are locating significant R&D facilities there. Thus the Applied Materials Corporation, based in Silicon Valley and the world's largest supplier of equipment for making semiconductors, flat-panel displays, and solar panels recently decided to build its newest and largest research lab in China.

Beyond China, other countries including Germany, Japan, South Korea, and Denmark are forging ahead with ambitious clean energy economic strategies and becoming top competitors in the vast emerging global marketplace for clean energy technology. Significantly, all of them are taking aggressive approaches to policy and investment. The work of these countries is critical in mitigating climate change, but their top motivation has been their own economic self-interest through the creation of vibrant new industries, significant new jobs, and growing international markets

in clean energy technologies and projects. In contrast, the U.S. has largely stayed on the sidelines, endlessly debating the need for and approach to a successful clean energy economic strategy.

That's the bad news from a US competitiveness, security, and environmental perspective. The good news is that we can and should regain our leadership in clean energy. As the President said in his 2010 State of the Union address, we should "not accept a future where the jobs and industries of tomorrow take root beyond our borders..." Among the solutions:

- Adopt a national clean energy standard, following the lead of many states that have set renewable energy and energy efficiency standards. I would note that during the 111th Congress, Congressman Barton (R-TX), and sixteen of his Republican colleagues, currently serving on the full Committee, supported an amendment to the American Clean Energy and Security Act that included a detailed clean energy standard;
- Increase our investment in energy R&D. The President's proposed 2012 budget is a good start with a one-third increase in overall investment in clean energy technologies compared to 2010. We should also avoid the major cuts in clean energy spending proposed in the 2011 House rescission package. And over time we should increase federal energy R&D budgets substantially;
- Support the DOE loan guarantee program that is proving pivotal in the deployment of clean energy technologies. The program is particularly important in financing U.S. projects that scale up clean energy technologies from initial pilot plants to first commercial facilities. This is the so-called "Valley of Death" where many energy technologies perish because of lack of capital, or their developers are compelled to go to other countries, like China, with more supportive financing mechanisms;
- Over time, replace the DOE loan guarantee program with a new Clean Energy Deployment Administration (CEDA) that was adopted last year by the full House and by the Senate Energy and Natural Resources Committee. Under the Senate legislation, CEDA would have a particular focus on Valley of Death projects, provide a broad array of financing mechanisms, enjoy an important degree of independence from DOE, and have the authority to take an equity stake in projects thereby reducing or eliminating the need for appropriations, following its initial capitalization;
- Extend federal tax credits that have been so vital in encouraging private sector financing of clean energy projects; and
- Most relevant to this hearing, the House should reject the proposal to withdraw EPA authority to regulate carbon emissions under the Clean Air Act. This authority was upheld by the Supreme Court in 2007 and as EPA Administrator Lisa Jackson said to this subcommittee just a few weeks ago, the pending House bill to withdraw EPA's authority to control carbon emissions would "depriv[e] American industry of investment certainty and new incentives for upgrading to advanced, clean energy technologies."

With regard to the current debate over EPA's authority, I believe it is inevitable that we will put strong controls on greenhouse gas emissions given the high costs of failing to act – from a loss of US market share in the massive clean energy sector to the rising cost and insecurity of importing foreign oil to devastation caused by increasing floods and droughts. The question of carbon regulation is not whether but when. And in this regard, there is a significant and increasing portion of the business community that seeks greater certainty and reliability regarding carbon controls, and supports a well-designed regulatory approach. As the CEO's of several major utilities said recently in the Wall Street Journal:

> *"Contrary to the claims that the EPA's agenda will have negative economic consequences, our companies' experience complying with air quality regulations demonstrates that regulations can yield important economic benefits, including job creation, while maintaining reliability. The time to make greater use of existing modern units and to further modernize our nation's generating fleet is now."*

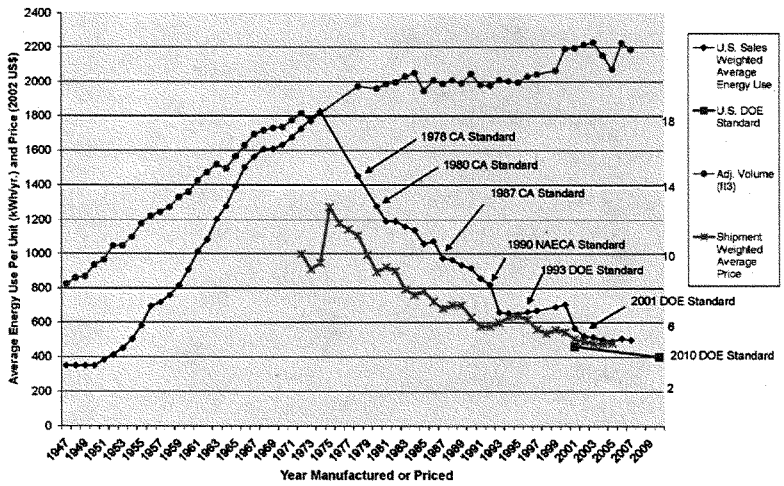
Michael Porter, a top Harvard economist and an economic policy adviser to the George W. Bush campaign, has been a champion of the view that well-designed regulation can spur technological innovation and enhance competitiveness. According to the "Porter Hypothesis", strict environmental regulation can induce efficiency and encourage innovations that help improve commercial competitiveness. Regulation triggers the discovery and introduction of cleaner technologies and environmental improvements. This "innovation effect" makes both production processes and products more efficient and achieves savings sufficient to compensate for both the costs of complying with the new regulations as well as innovation expenses. And ultimately the investment returns from new markets for advanced technologies can make the cost-benefit ratio even more attractive.

The "Porter Hypothesis" enjoys strong support across the spectrum of environmental and energy regulation. With regard to clean air regulation, study after study demonstrates that substantial public health and environmental benefits have resulted from reductions in air pollution achieved under the 1990 Clean Air Act Amendments and, importantly, the cost of achieving these benefits was a fraction of industry forecasts, and significantly below even EPA's own projections. The dire cost predictions in 1990 overlooked the power of U.S. innovation unleashed by the goals of the Clean Air Act Amendments and the market-based system Congress established to achieve them. Thus in 1990, power companies predicted that reducing sulfur dioxide to address the acid rain problem would cost $1000-$1500 per ton and electricity prices would increase in many states. In fact, the actual pollution reduction cost has been between $100 and $200 per ton for most of the program, and electricity prices fell in most states.

With regard to energy efficiency regulation, the lowly refrigerator demonstrates again what smart regulation can achieve. As a result of a series of state and federal

standards – issued by both Democrat and Republican Administrations – a typical refrigerator today uses roughly a quarter of the electricity that it did in the 1970's, holds significantly more food, no longer has to be manually defrosted, and actually costs less in real terms. The refrigerator story – repeated in several other appliances over the last few decades – demonstrates that smart policy can not only harvest the "low hanging fruit" of technological innovation but grow it as well as new more rigorous standards drive further breakthroughs. And importantly, the refrigerator story also shows that smart regulation can actually cut purchase and operating costs significantly. The chart below tells the story I like to call *"Building a Fridge to the 21st Century"*.

U.S. Refrigerator Energy Use v. Time with Real Price



Source: "Electrical Energy Consumption in California: Data Collection and Analysis," S. M. Berman, et. al., Lawrence Berkeley Laboratory, UCID 3847, 1978 for 1947-1975 data. Association of Home Appliance Manufacturers for 1972, and 1978-2002 data.

With regard to automobile fuel economy, in early 2009 the Administration reached an agreement with the auto industry that will result in a single national program for fuel economy and greenhouse gas emissions. Under the agreement, the Department of Transportation and EPA promulgated 2012 to 2016 model year fuel economy and greenhouse gas standards that not only align with one another, but are deemed to comply with California and other state standards. This program, which has broad support from industry, states and environmental groups, will increase average fuel economy levels in new passenger vehicles to 35.5 miles per gallon, save consumers

roughly $3000 over the life of a vehicle, and drive fuel consumption in new vehicles down by 30% from 2012 to 2016.

On a global scale, the International Energy Agency (IEA) in its 2010 World Energy Outlook concluded that aggressive reductions in carbon emissions from transportation sources, by stimulating fuel ecconomy improvements, would significantly lower oil demand and decrease oil prices. Under the IEA scenario, global oil prices would be $90 per barrel in 2035 and U.S. oil imports would drop from more than 10 million barrels per day in 2009 to less than 6 million barrels per day in 2035. This level of oil imports, last seen in the mid-1980's, would provide a profound boost to U.S. energy security by making us far less vulnerable to oil price shocks from global events like those occurring today in the Middle East as well as from natural and man-made disasters.

Finally, a recent report, "Driving Growth: How Clean Cars and Climate Policy Can Create Jobs," by the Center for American Progress, United Auto Workers, and the Natural Resources Defense Council, found that strengthening auto fuel economy standards could produce significant investment and innovation in fuel efficiency technology and create tens of thousands of jobs in the process.

These examples of smart regulation point to the high likelihood that EPA will implement carbon controls in a manner – consistent with the "Porter Hypothesis" – that will stimulate technological innovation, increase U.S. competitiveness, and produce cost savings sufficient to compensate for both the compliance and innovation costs. I would also note that the several provisions of the Clean Air Act that EPA would use to cut carbon emissions explicitly require the agency to *prove* that any pollution standard it sets is technically feasible *and economically reasonable.*

Wrapping up, I spent the last four years at Google helping to develop and implement the company's approach to energy policy, investment and technology. Coming from the energy sector, I was struck at Google by how innovation, investment and policy came together so effectively to build an entirely new industry – the Internet – that has fundamentally transformed life as we know it and created vast numbers of good paying U.S. jobs. The federal government had a large role in the creation of the Internet, providing early R&D support and becoming one of its initial users. Critical policy decisions by Congress, a series of Democratic and Republican Administrations, and regulatory bodies like the FCC, set smart rules of the road for development and use of the technology. Trade policy has helped ensure opportunities for U.S. companies in advancing the Internet across the globe. And I would be remiss if I didn't mention the role the Internet is playing – literally as we speak –in recent efforts to bring democratic government to key countries in the Middle East.

We must take a similarly coordinated approach between the private sector and the U.S. government in order to seize the opportunities in clean energy technology. We

face declining federal R&D funding, unreliable incentives, inadequate financing mechanisms, a lack of priority in U.S. trade policy, and unknown direction when it comes to carbon controls. Arguably, cooperation between industry and government is even more critical in clean energy technology than the development of the Internet as the stakes are higher in terms of our nation's security, competitiveness, health, and environment.

We tend to measure progress in information technology in months or years. In contrast, we measure progress in energy technology in decades. If we don't get our act together between our government and the private sector, other countries, like China and Germany, that are taking the long view when it comes to energy technology, will be the winners of this marathon. A prize worth trillions of dollars and millions of jobs hangs in the balance – to say nothing of the future of our planet.

Thank you for the opportunity to testify. I look forward to your questions.

Mr. WHITFIELD. Thank you, Mr. Reicher, and thank all of you for your testimony.

Tthis testimony is so stimulating really because the perspectives on this issue are really diametrically opposed which is what makes this so interesting. We are not going to get into the science and I am going to read this one sentence, not for its truthfulness per se but just as a view. Now, this was stated by Vaclav Claus, President of the European Union, about this book which is written by Ian Plimer who has won Australia's highest scientific honor twice and he says this is a very powerful, clear, understandable and extremely useful book. Plimer convincingly criticizes the United Nations, the International Panel for Climate Change, UK, U.S., and European Union politicians as well as Hollywood show business celebrities. He strictly distinguishes science from environmental activism, politics and opportunism. Now, like I said I am not talking about the truthfulness of that but here is the issue. When you have that kind of different views on this very important subject and Congress on three separate occasions has said no to EPA regulating greenhouse gases, and when Lisa Jackson appeared before this committee a couple of weeks and she was asked by Mr. Green of Texas, can we really address climate change without strong, mandatory reductions by other major emitters in other countries and Ms. Jackson said we will not ultimately be able to change the amount of CO_2 that is accumulating in the atmosphere alone.

So listening to you gentlemen, many of you talk about the additional cost that would be imposed upon American businesses and that the fact that even Ms. Jackson herself has said there would not be any dramatic improvement in CO_2 reductions, how do draw this line? Mr. Carey, you said in your testimony that EPA has indicated that they would be closing down 14,000 megawatts of coal plants by 2011–2012. Now, all of you are businessmen but how if you lose that kind of electricity, how do you make it up at a cost that does not increase the cost of American businesses? Can you answer that for me, Mr. Carey?

Mr. CAREY. Mr. Chairman, I should be clear that the studies I am citing, there are several studies and they all vary from about 75 gigawatts that would be lost under these proposals all the way down to 60 gigawatts.

Mr. WHITFIELD. Gigawatts, OK, right.

Mr. CAREY. Yes which is also the thousand megawatts so that is where we get the number from but clearly for our industry when you are shutting down coal-based power producing facilities, much like with the Clean Air Act the rush was to put on clean coal technology which at that time is scrubbers. What we are looking at now is the baseline of CO_2 in the concept of carbon sequestration. So the ability for many of these power producing facilities to actually meet the standard under a carbon sequestration standard and ultimately be able to get the carbon dioxide to the facility, the technology A is not out and ultimately what could happen and who is responsible for the carbon dioxide that goes into the ground. So those numbers would reflect a tremendous drop in coal production and when you drop the amount of coal as I stated before, Penn State said for every one coal job, up to 10 supporting jobs, the sec-

ondary jobs are due to that one coal job, you are looking at taking a number from anywhere of shutting down 77 percent.

Mr. WHITFIELD. Except for Mr. Reicher, it seems like most of you agree that businesses would experience higher costs and there would be some job loss. Am I correct on that? OK, everybody says that and Mr. Reicher feels like the green energy would create additional jobs.

Mr. REICHER. Mr. Chairman, I would have to say that there are costs but there are also benefits.

Mr. WHITFIELD. Yes and how do you determine what that line is? That is the real question.

Mr. REICHER. That is where reasonable people will differ and that is the essence of this debate.

Mr. WHITFIELD. Yes and, you know, I am glad we are going to have Gina McCarthy with us today because she according to EPA air chief Gina McCarthy applying the 100–250 tons per year limit for greenhouse gases as mandated by the Clean Air Act would require six million sources to obtain Title Five permits, lead to 82,000 permitting actions under PSD, result in an estimated combined cost of $22.5 billion just to the permitting authorities and not to the businesses. So of course I know they are depending on the tailoring rule but a lot of people believe that tailoring rule be ruled illegal.

Well, I got off my message here and I am out of time so, Mr. Rush, I will recognize you for 5 minutes.

Mr. RUSH. Thank you, Mr. Chairman.

Mr. Reicher, how do you respond to the charge that many studies show that EPA's regulation of greenhouse gases will actually create jobs and stimulate growth in the economy are incomplete and give a distorted picture?

Mr. REICHER. Could you repeat that? I am sorry, Mr. Rush.

Mr. RUSH. How do you respond to the charge that many studies that show EPA's regulation of greenhouse gases will actually create jobs and stimulate growth in the economy, that they are incomplete and they give a distorted picture?

Mr. REICHER. Mr. Rush, I would look around the world where we are seeing a whole host of controls being put on carbon emissions from China to the European Union and a whole host of other countries where in fact clean energy industries are taking off, jobs are being created in large, large numbers. So I am—this has actually been a real net economic benefit in many respects to countries that have taken this initial step to begin to control carbon emissions.

Mr. RUSH. Do you have any particular examples in mind that you could?

Mr. REICHER. Germany is a great example, leading the world in so many energy technologies right now and they have taken and put into effect a set of rigorous standards to control the emissions of greenhouse gas emissions over time, days in goes in. They have set and with that has come a very robust industry and a whole host of clean energy technologies from advanced natural gas technologies to cogeneration to solar and wind, and to the extent that they are actually jobs, there are actually shortages of highly-skilled employees for certain of the industries in that country.

Mr. RUSH. Dr. Montgomery, you had some interesting remarks in your testimony and you mentioned the PERI reports before as an example of how some studies are incomplete and distorted in regards to the effects of the regulation on job creation. In fact, you draw on environmental economics and management which are four of the most heavily regulated industries which are pulp and paper refining, iron and steel and estimated a net increase in employment of 1.5 jobs per $1 million and environmental spending over alternative expenditures. The same publication also found a net employment gain from environmental spending noted that and I quote, "Environmental protection is rapidly to become a million sales generating job creating industry, $300 million per year and five million direct and indirect jobs in the 2003." Do you dispute those numbers and if so on what basis do you dispute them?

Mr. MONTGOMERY. Actually they make my point perfectly that the environmental regulations increase the number of workers that have to be employed in an industry. They have to file forms. They have to operate pollution controls and that adds to cost. Workers are a cost. It does not mention what happened to the output of those industries compared to what it would have been had they not been facing these costs. Yes, they have more workers per dollar of output and they have less output because of the effects of higher prices, shifting demand away from those industries and into other substitutes and shifting demand to other countries. Your second point which I believe was that there are many jobs that are created in what you cited a number of jobs that are created in industries producing pollution control equipment. Absolutely, that is my point and those workers are not available for producing other goods that actually go directly into the consumption and satisfaction of individuals. Those workers are not available for healthcare. Those workers are not available for producing automobiles. We are diverting resources away from other activities in the economy and the study that you cited did not mention that in any way.

Mr. RUSH. So you would say then that if those were same workers were not employed in the efficiency areas then those workers would be at work selling cars and manufacturing cars and other industries, is that what you are saying?

Mr. MONTGOMERY. Well yes, that is clearly true in the long run. Absolutely, the employment in this economy is determined by the available labor force and aside from occasional recessions we have done an extraordinarily good job under Democratic and Republican Presidents of maintaining full employment but it is a matter of macro-economic policy and you don't improve on that policy by imposing costs through environmental regulations. It is simply a different category of policy decisions. For example, the PERI report that claims to be talking about all of the total jobs that are going to be created in the economy. It said well yes, there are some offsetting job losses. The people who are going to be working in those coal-fired power plants that are being shut down but it didn't mention all of the workers in the coal industry that were no longer going to be producing coal to go into the 60 or so of gigawatts of coal-powered power plants. They absolutely left it out.

Mr. WAXMAN. The gentleman yield to me. I want to ask you a follow-up question. Do you ever see any benefit in regulation to deal with pollution or is it all negative?

Mr. MONTGOMERY. Absolutely, we have had tremendous benefits from many of the environmental regulations. We have seen air quality in Southern California. I lived in Pasadena for 8 years.

Mr. WAXMAN. How about in the jobs area?

Mr. WHITFIELD. Sorry, we are about a minute-and-a-half over.

Mr. RUSH. Thank you, Mr. Chairman, I yield back the balance of my time.

Mr. WHITFIELD. Thank you for doing that.

Mr. Barton is next but it is my understanding, let us see.

Mr. BARTON. I am going to yield I think to Mr. Griffith.

Mr. WHITFIELD. Mr. Griffith, I understand you have a conflict on the floor so we will recognize you for 5 minutes.

Mr. BARTON. I pass and I do want to ask questions but I wanted to let him go first.

Mr. GRIFFITH. I thank you, gentleman.

Mr. WHITFIELD. Without objection, Morgan.

Mr. GRIFFITH. I appreciate it.

Mr. Reicher, in your written statements you indicate and in your oral statements as well that China is well on its way to having a green or a more green energy producing economy and isn't it true though at this time that they actually produce more of their electricity with coal than we do in the United States?

Mr. REICHER. They produce a very significant amount of their electricity with coal, absolutely but they also have been growing their renewable energy industry in a very significant way and now lead the world in renewables and now lead the world in both solar and wind. They have also made huge strides in energy efficiency. They are a quickly growing country as we know. No dispute that they use a lot of coal but the point is, the important is they have an accelerated renewable energy industry that is really creating really large numbers of jobs.

Mr. GRIFFITH. Isn't it their history that they do a lot of things that we don't do? For example I think in your written statement on page three you indicate that they have 27 nuclear power plants under construction and is that accurate?

Mr. REICHER. They have—yes they have a large number of nuclear power plants under construction.

Mr. GRIFFITH. And you also indicated that they have a lot of hydroelectric facilities that are under construction or in the plans, is that correct?

Mr. REICHER. That is correct.

Mr. GRIFFITH. And isn't it true that they pay a high price for those hydroelectric generated electricity in those plants?

Mr. REICHER. Mr. Griffith, every energy technology, all of them have their pluses and minuses, and along with hydro you get those.

Mr. GRIFFITH. Isn't it true that the Chinese have not paid attention anywhere near the level of the United States towards the environmental impact of so many of their facilities and I am thinking of their hydroelectric in particular and the functional extension of the Three River Gorge Yangtze River Dolphin? Are you familiar with that?

Mr. REICHER. Yes, I am.

Mr. GRIFFITH. And that would be accurate, is it not?

Mr. REICHER. There is no doubt that the development of these kinds of facilities bring with it environmental problems and there is no doubt that the Chinese have not adequately attended to those in all cases. I have actually kayaked down those Three Gorges and I know exactly what is there and what has been lost, having said that, they have been making great strides to become leaders in renewable energy. They are making great strides to improve their energy efficiency and there are increasing calls and I think increasing response to improve their environmental performance but they have got a long way to go, no doubt about it. But from an economic standpoint, they are taking over this clean energy industry in a very significant way.

Mr. GRIFFITH. And from an economic standpoint do you think that it is appropriate that we adopt that model because I kind of got the impression you were holding them up as an example.

Mr. REICHER. I am holding them up as an example of a country that has put a real priority on clean energy technology research, demonstration, development and deployment. I am not holding them up necessarily as a model for how you adequately ensure all kind of environmental performance but on that front I think there are improvements but they need to continue.

Mr. GRIFFITH. And isn't it true that we have different standards also on human rights and as a part of their hydroelectric program they have actually moved 22 million people from one location to another and offered such rich financial rewards as $7 a lot?

Mr. REICHER. I don't know that at all. I am sorry.

Mr. GRIFFITH. But you are aware of having kayaked in that area that millions just for the Three River, just for the Three Gorges Dam Project had to be moved?

Mr. REICHER. I don't know the exact number. Certainly there were large displacements of people just as there have been all over the world including in our own country when dams get built. Let me not sit here today and tell you that hydropower is without its major environmental, human and economic costs. All technologies, all energy technologies have their pluses and minuses and there are significant ones that we know well in this country and that the Chinese are experiencing themselves with respect to hydropower.

Mr. GRIFFITH. And I like Mr. Montgomery's comments about the fact they never take into consideration all the coal workers and I wonder how you would address that because it is not just the folks working at the power plants who work in coal but it is all the folks who provide equipment for the coal mines who make their livelihoods by supplying the miners themselves and then of course the miners themselves. And in that economic equation that you have made where you hold China up as an example, did you calculate in all the lost jobs that we would have in the energy field in this country, particularly in the coal fields?

Mr. REICHER. There is always again got to be pluses and minuses. You have got to look at what comes with a move from one energy technology to the other. There is displacement. There are positives. There are negatives.

Mr. GRIFFITH. Thank you, Mr. Chairman.

Mr. WHITFIELD. Yes, sir.

Mr. Waxman, you are recognized for 5 minutes.

Mr. WAXMAN. Thank you very much, Mr. Chairman.

This is a panel of seven people, six of whom underscore and confirm their views that are similar to the chair's and then there is one that has a different opinion and I thank you very much for letting this one witness testify. Yes, Mr. Barton was telling me how he always thought the Minority got a third of the witnesses.

Nevertheless, Republicans are talking about EPA's onerous, burdensome regulations killing jobs. That is what this hearing is all about but EPA is simply requiring when it comes down to it energy efficiency when the largest polluting facilities in the country are constructed or expanded and significantly increase their pollution. That is what the EPA regulations do.

Mr. Reicher, are energy efficiency improvements at new power plants, the melt kilns or the very largest manufacturing facilities going to kill jobs.

Mr. REICHER. Mr. Waxman, I actually think improvements in energy efficiency at plants like this number one, make keep them online longer than they would otherwise operate. Number two, the amount of equipment required to improve that efficiency will create jobs. Workers will continue to be employed so I think on balance if we do this the right way and actually improve the efficiency of existing power plants this could be a very net positive economic outcome.

Mr. WAXMAN. I must say from my 36 years in the Congress every time we have had an idea proposed to reduce pollution the industry representatives all come in and say they will be out of business and can't function. The economy will suffer greatly and then once the proposals are put into law they accomplish the goal. They become even more efficient and therefore more competitive.

Mr. REICHER. Mr. Waxman, if I could, Henry Ford, II, commenting in 1966, on seatbelt and safety glass mandates for automobiles said we will have to close down the industry.

Mr. WAXMAN. It is almost an article of faith among those who oppose any efforts to reduce our carbon pollution that China and the rest of the world aren't taking meaningful action to reduce their emissions and they argue why should we be doing anything that would disadvantage American companies if we take steps to reduce our own emissions. Is this an accurate statement? Is it true that China is taking no action to reduce carbon emission?

Mr. REICHER. China has committed to reduce its carbon intensity 40 to 45 percent below 2005 levels by 2020, and they are actually expected this month, this in March to make that a binding commitment domestically.

Mr. WAXMAN. Isn't it true that in China many of the people do not speak English? My next question is China is not standing still. That is the kind of question of isn't China bad on human rights and therefore we shouldn't do what they are doing on economic policy? The question then becomes is China standing still? Are China's policies costing China jobs or are their carbon and clean energy policies driving Chinese firms to dominate the global market for clean energy technologies? What do you think, Mr. Reicher?

Mr. REICHER. You know, Mr. Waxman, it is not just that they are increasingly dominating in the manufacturing of these clean energy technologies but in a way even scarier is how increasingly they are beginning to dominate in research, development and demonstration. We see large American companies actually setting up their largest R&D facilities, Applied Materials, Incorporated, one of the largest makers of solar equipment manufacturing in the world is setting up a brand new R&D facility in China.

Mr. WAXMAN. China is taking action to reduce its carbon pollution and to build strong, competitive, clean energy industries and the results are massive job gains or massive job losses?

Mr. REICHER. The Chinese renewable energy industry has grown fantastically in terms of jobs.

Mr. WAXMAN. They are the world's largest manufacturer of solar panels. Their aggressive policies are in its economic self-interest and we may not agree with other things they do and we are certainly not interested in their economic self-interest. We should be interested in our own but they are acting in their economic self-interest. Mr. Reicher, if we do nothing other than roll back EPA's modest steps to reduce carbon emissions are we at risk at losing the clean energy jobs race with China?

Mr. REICHER. Absolutely, we need to put in place a whole host of mechanisms to really regain the lead that we once had. We developed most of this industry so for example I do think the clean energy standard makes a lot of sense to put in place. I also think we should support the DOE Loan Guaranty Program which has been so critical to building the next generation of nuclear power plants, building breakthrough renewable energy facilities and we should transition that to the Clean Energy Deployment Administration that was adopted by the full house and in the Senate Energy Committee on a bipartisan basis last year.

Mr. WAXMAN. Thank you.

Mr. WHITFIELD. Mr. Barton, you are recognized for 5 minutes.

Mr. BARTON. Thank you and it is a joy to watch the coordination between the ranking member and the ranking minority's witness. Is there any question that he didn't ask exactly the way you wanted it asked, Mr. Reicher? I am sure we will give him some more time if we need to do that?

Mr. WAXMAN. Does the gentleman find fault with any of my questions?

Mr. BARTON. No, I thought I don't find fault. I just think it is a joy to watch the coordination. I think you all handled that very well.

Mr. WAXMAN. Done with the other panelists.

Mr. BARTON. I was giving you a compliment.

Mr. WAXMAN. I will accept it.

Mr. BARTON. Very good.

Mr. REICHER. Mr. Barton, I have been asked questions like this a lot so this is fairly straightforward.

Mr. BARTON. Thank you.

My question to anybody on the panel, unscripted, is there a control technology to control CO_2 that is in existence today and is cost effective?

Mr. MCCONNELL. My understanding is there is not one.

Mr. BARTON. There is not one and what about Mr. Cicio, are you aware of any control technology that exists to control CO_2?

Mr. CICIO. No, there is no end of pipe technology that is cost effective.

Mr. BARTON. Mr. Reicher, do you share that?

Mr. REICHER. Well, the good news, Mr. Barton, is that yesterday and this will be relevant to Mr. Shimkus and Mr. Rush, a major project was announced in Illinois that would build a carbon capture and sequestration facility under the FutureGen Program.

Mr. BARTON. I am very well aware of that.

Mr. REICHER. A billion dollar investment in the project and a thousand construction jobs and a thousand service sector jobs so we are making some progress.

Mr. BARTON. In and of itself that technology is not cost effective. It cost at least 30 percent of the cost of the power generation just to sequester the carbon.

Mr. REICHER. We have got a long way to go no doubt. I guess the most cost effective we got one we have is probably trees.

Mr. BARTON. OK so the answer is by if not unanimous consent by consensus, is that there is no existing technology to control CO_2.

Mr. JOYCE. Well, yes it is nuclear power.

Mr. REICHER. You are talking about capturing CO_2.

Mr. BARTON. You can burn hydrogen. Hydrogen doesn't create, you know, if you burn hydrogen you get H2O, you get water vapor. Nuclear power does not combust, it fissions. So there are technologies out there but if you are going to use natural gas, if you are going to use oil, if you are going to use coal, if you are going to use even our famous biomass here, you are going to create CO_2 and there is no cost-effective way currently to mitigate it.

Mr. MCCONNELL. But one way to reduce CO_2 emissions in our industry, the automobile industry is to have one national standard, CAFE that Congress put into place that takes into consideration cost. You know, we have to sell these things. It may cost a billion dollars somewhere but ultimately what I am the expert on is selling fuel-efficient cars since I was 16 and right now we have three agencies, California, EPA trying to tell us all what to do. We need one because they are the only one that take into consideration customer acceptability and choice and it doesn't do the economy any good or jobs. Auto dealers employ a million people in this country. If you have a product that sits on the lot that doesn't sell because it is not priced right there are many businesses that have been shuttered down and gone broke because they are not giving the customer what they want and so that is the reason our organization would like to see CAFE implemented.

Mr. BARTON. Mr. Chairman, I am not sure what my time. I never saw the clock start or stop.

Mr. WHITFIELD. Well, I am going to ask the official timekeeper here.

Mr. BARTON. Do I have time for one more question?

Mr. WAXMAN. Unanimous consent the gentleman be given 2 additional minutes.

Mr. WHITFIELD. Without objection.

Mr. BARTON. Be careful, my side may object to that. The unanimous consent things are shaky sometimes. I have one final ques-

tion and I appreciate my friend from California and the chairman giving me some time.

Administrator Jackson has testified that greenhouse gas best available technology most likely means that you just have to use energy efficiency measures. Mr. Cicio, you represent the largest energy users in America. Don't the companies that you represent already do everything they can to be energy efficient?

Mr. CICIO. Most certainly the industrial sector spends more money and has had more success in improving energy efficiency than any of the sectors of the economy. In this case the EPA really has it backward. When a manufacturer decided—by the way, if you are not aware manufacturing has probably hundreds of thousands of combustion processes that are used to produce widgets. When we make decisions in what process is used to make a widget we take several things into consideration like how many widgets can we produce in a time period? What is the cost of a widget? What is the raw material flexibility to produce the widget? What is the quality of the product with that process? What is the flexibility of the manufacturing operating processes, all that criteria in deciding what process plus energy efficiency? How energy efficient is the process? EPA, unfortunately with the new regulation starts with the premise of what is the most energy efficient process and that is not going to create a low-cost manufacturing widget process. That is too limiting and it is going to lead to higher cost.

Mr. BARTON. I thank the discretion of the chairman and ranking member.

Mr. WHITFIELD. Mr. Green, you are recognized for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

First, I believe that controlling carbon shouldn't be EPA. The Supreme Court said that. I want Congress to be able to make those decisions because we can balance that economics and we tried last Congress. It couldn't get through with the cap and trade. I would hope our committee would look at it and that is why I am a cosponsor of the 2-year delay so we can force Congress to deal with it. Although the solution may be just to encourage trees but we would probably have to go to the Natural Resources Committee to do that.

Mr. Cicio, in May of 2010, the EPA finalized the tailoring rule and until June 30 of this year only sources subject to the prevention of significant determination for other pollutants will be required to consider greenhouse gases in the permit. From July 1 of 2011 to June 30 of 2013, new sources the emit at least 100,000 tons of greenhouse gases per year or existing sources seeking to increase pollution by 75,000 tons per year will be required to obtain the PST permits. The EPA will determine on July 1 of 2012, whether it will lower the threshold further but it has committed that it will not consider any level below 50,000 tons a year. Can you please cite how many industrial manufacturers in our country are affected by regulations at each of these three levels, 100,000 tons of GHGS a year, 75,000 or 50,000? Do you have any idea from your association? I mean I represent refineries so.

Mr. CICIO. Oh yes, you have a lot of it in your backyard. Unfortunately, I don't have those statistics and I would be happy to try to craft something for you and provide that to you.

Mr. GREEN. I would appreciate it because our testimony from Administrator Jackson a few weeks ago was that they tailored it so it would only cover the largest facilities and just see how many and granted they are trying to start with the largest so to see how many there are and appreciate you getting it back.

What sort of federal carbon controlling program if developed by Congress and not the EPA could the industrial manufacturers support?

Mr. CICIO. Well, thank you, that is a wonderful question. We have actually addressed that in what we call our Sustainable Manufacturing Growth Initiative because as manufacturers we put together policies that we felt would incentivize and remove regulatory barriers to even greater energy efficiency. And as you heard in my testimony, implementation of that program would result in 10 percent reduction of all greenhouse gas emissions in 10 years and even more importantly it would create 3.2 million man-years of jobs and almost $500 billion of capital investment in 10 years. That is capital investment that is not happening today. So the best thing is that it utilizes existing but more energy efficient technology and simply taking it off the shelf and getting it in the ground today creating jobs and investment.

Mr. GREEN. Well and I don't know who answered our former chair of the committee, the ranking member that said nuclear would be the solution for some of our carbon controls and we are trying to do that because that is one of those solutions because so much of our carbon comes from our electricity producing plants. Again, I have those plants, I have coal plants but I also have refineries and chemical plants that have another issue. So but I think Congress ought to make those decisions.

Mr. McConnell, California's fuel economy program exempts until 2016 automakers who sell less than 60,000 vehicles per year in California and manufacturers exempt in California are also exempt from every CARB State regardless of how many vehicles are sold outside California. After 2016, CARB has intended to regulate these vehicles at a lower standard. If the brands you sell are not exempt how will that impact on your brand line because I know you have both Honda and Acura and I think you have a U.S. model too although Honda is also a U.S. model too.

Mr. MCCONNELL. Well, first of all we believe the State of California should not be setting national energy policy.

Mr. GREEN. Coming from Texas, I agree.

Mr. MCCONNELL. So I appreciate your question. I will tell you, you are absolutely right and I don't think some people realize it. Selling Honda we are under the California which is just a hodgepodge. There are three different people regulating. What we want is one, CAFE which Congress laid out, a single national standard. For example, you are right, Honda, Toyota, Nissan, Ford, Chrysler, GM are covered. BMW is covered. Mercedes is not covered. Hyundai is not covered. Kia is not covered. Porsche is not covered. Volkswagon is not covered. Jaguar is not covered. Suzuki, Mitsubishi, I could go on and on, and potential that new Chinese and Indian automakers would not be covered. That is why under CAFE they don't have all of these crazy exemptions. So we want the one national standard. It takes the most important thing to me,

it take an accountability, they are required that, the EPA is not, California is not. Customer acceptability and choice because ultimately the customer is the one that spends its own, the family decides what do I want, what can I afford and if that is in the case you will sell more new cars, create more jobs and you will also get more fuel-efficient cars on the road which is obviously a big goal.

Mr. GREEN. Thank you, Mr. Chairman, and the gavel is for us not to ask any more questions, not for you all.

Mr. WHITFIELD. Mr. Shimkus, you are recognized for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman.

This kind of follows-up in a hearing we had 2 weeks ago on the environment and the economy. It is my subcommittee but we have to accept the fact that the decisions we make or the decision a regulator makes that there is a job aspect that people ought to debate and discuss and I come to this with great passion because and many of you have seen this before. Mr. Carey, you have. Mr. Cicio, you have seen it. This is why we killed Waxman-Markey because we made the argument that in '92 on the Clean Air Act which was a legitimate debate on cleaning the air these miners lost their jobs. This is just one group of miners at a mine in my congressional district which is closed now, 1,000 miners lost their jobs and by using this and the reality is there are a lot of fossil fuel Democrats no longer in Congress and do you know why, because they didn't protect their jobs because of the greenhouse gas movement, the Waxman-Markey threatened to destroy any remaining jobs.

Mr. Carey, you have testified before. How many coalminer jobs are lost in the advent of the Clean Air Act?

Mr. CAREY. Mr. Chairman and Congressman Shimkus, the idea in Ohio and I think when I testified before we looked at the amount of tonnage of coal we lessened it by half, take away half that miners, those were roughly 3,000 miners, multiply a fact of close to 10,000 or 10 for every one coal mining job so 3,000.

Mr. SHIMKUS. So your staff 35,000 jobs were lost and that was in the Clean Air Act which a lot of us would say knock socks particulate matter, some bad stuff that we really needed to get out of, you know, out of the air. There is now a debate about greenhouse gases and is it a pollutant, is it not and that is why we need to move on this legislation to let us to take into the aspect of what is the cost, what is the impact on the economy. Why are we so fired up about this? Well, here is just one rule from the EPA and they are quoted, "The RIA for this proposed rule does not include either qualitative or quantitative estimation of the potential effects of the proposed rule on economic productivity, economic growth, employment, job creation or international economic competitiveness." Now, Mr. Carey, don't you think we ought to consider that when we are promulgating a rule or a regulation?

Mr. CAREY. Mr. Chairman, Congressman, yes.

Mr. SHIMKUS. Mr. Cicio?

Mr. CICIO. Absolutely.

Mr. SHIMKUS. Mr. Joyce?

Mr. JOYCE. Yes.

Mr. SHIMKUS. Mr. McConnell?

Mr. MCCONNELL. Without question.

Mr. SHIMKUS. Mr. Montgomery?

Mr. MONTGOMERY. Yes.

Mr. SHIMKUS. Mr. Reicher, do you think the EPA is wrong in not considering the economic impact of a proposed rule?

Mr. REICHER. EPA is required to consider the economic impact of a proposed rule.

Mr. SHIMKUS. This is from the EPA and I just read the quote. Let me just quote another one, economic analysis on another proposed EPA rule, let me read in subparagraph 9.2, .3, .3, impacts on employment the chapters on benefits, chapter seven and cost, chapter eight, point out that, "The regulatory induced employment impacts are not in general relevant for a cost benefit analysis."

Mr. REICHER. So, Mr. Shimkus, I would just urge you to take a look at the Clean Air Act sections, the three sections that relate to.

Mr. SHIMKUS. And I am going to reclaim my time. I am going to reclaim my time, sir. Sir, I am going to reclaim my time.

My point is we are not disputing knock sock particulate matter. We do dispute carbon dioxide. Now, I have got a 1,600 megawatt. Does everyone agree that if you raise the price of a commodity product that the cost of good sold goes up?

Mr. CAREY. Yes.

Mr. SHIMKUS. That is a yes. Mr. Cicio?

Mr. CICIO. Absolutely.

Mr. SHIMKUS. Mr. McConnell?

Mr. MCCONNELL. Yes.

Mr. SHIMKUS. Mr. Joyce?

Mr. JOYCE. Yes.

Mr. SHIMKUS. Mr. Montgomery?

Mr. MONTGOMERY. Yes.

Mr. SHIMKUS. Mr. Reicher?

Mr. REICHER. Ask the question again?

Mr. SHIMKUS. I asked Administrator Jackson if she really believe in the basic economic 101 supply and demand. If the supply is constrained or the cost of the good goes up does that mean that the price of the cost of the good goes up?

Mr. REICHER. Well, if you have to use the same amount of that good of the product that has been improved.

Mr. SHIMKUS. That was a better answer than the administrator gave and I appreciate that.

Mr. REICHER. To improve the efficiency of the manufacturing process.

Mr. SHIMKUS. And which they do, that is the whole debate that Mr. Cicio will say. It is not worth the manufacturers' time, effort and energy to run inefficient plants. Now and let me add, I am going to run out of time. Mr. Cicio, you said you don't know of a single manufacturer that would not be harmed by greenhouse gas and would lose jobs, is that true of both?

Mr. CICIO. What I said specifically is that I talked to lots, many, many manufacturers that have facilities all over the country. I do not know and have not heard of one that support the EPA greenhouse gas regulations, yes, sir.

Mr. SHIMKUS. Thank you. I yield back.

Mr. WHITFIELD. Mr. Walden, you are recognized for 5 minutes.

Mr. WALDEN. Thank you very much.

I just want to ask I think it is Mr. Carey and anybody else that wants to respond. Walk us through what you think the cost of these regulations are on jobs and the economy in your part of this debate because this is something I think people at home care a lot about. I mean none of us wants dirty air. Most of us in my part of the world in Oregon like renewable energy as long as we kind of know what the costs and tradeoffs are although some people are getting a little tired of the windmills.

Mr. CAREY. Well, Congressman, what I think we are debating is carbon dioxide and the role of the EPA in regulating carbon dioxide under the Clean Air Act so if we take that off the table, if you look at Ohio, West Virginia, Kentucky, Pennsylvania. In Ohio, 90 percent, 89 percent of all the electricity off of the grid comes from coal base so when you relate that to heavy manufacturing anybody who is making a widget understands that one of the large costs of making that widget is energy so ultimately the price of that product would go up and if it goes up possibly that product's production would be moved overseas and ultimately then we would lose the job there.

Mr. WALDEN. We are seeing in the northwest is some of the renewable energy begins to feed into the system rate increases of 10–15 percent as sort of the cost, additional cost. Now, these are benefit tradeoffs we are talking about here because you have got the renewable energy but there is this cost piece.

Mr. CAREY. No doubt about it, Congressman. What was put in place in Ohio was Advanced Energy Portfolio Standard.

Mr. WALDEN. Right.

Mr. CAREY. And ultimately what you are seeing now is those utilities can't meet the cost cap that was put in place by the State legislature. So the idea that the price is going to go up with those renewables is a fact and it is happening.

Mr. WALDEN. Mr. Cicio.

Mr. CICIO. Yes, on the subject of cost of regulation, number one for those who have not, who want to invest in the United States in a manufacturing facility to create jobs, a rule like this is preventing investment. So these are jobs that could have been and won't. Manufacturing is globally mobile. We must produce in countries where we can have low costs and thrive or we die as a company. So but for manufacturing facilities that stay and have these higher costs then their competitiveness is threatened and the potential for job loss and plant shutdown.

Mr. WALDEN. Mr. Joyce.

Mr. JOYCE. In the permitting process, you know, just adding another layer of permits, you have got, you know, local and State permits. When we, you know, as the tailoring bleeds off and more and more buildings come under the control of EPA.

Mr. WALDEN. Right.

Mr. JOYCE. And more and more permits, I mean a federal permit, any federal work is daunting for a smaller project so we have just great concern over the additional permitting in the construction side of the house and what we think is a lot of good projects is probably the straw that breaks the camel's back. They just don't get done. So those are huge costs. They are huge costs to jobs and job creation in the construction sector.

Mr. WALDEN. And are those ever quantified? I mean the project that never gets built probably never gets the big press so you don't know the loss, right?

Mr. JOYCE. There is soft cost and, you know, any type of a labor paperwork intensive permitting process on a construction job is bad right now at any time.

Mr. WALDEN. Yes, Mr. McConnell, do you want to comment on this?

Mr. MCCONNELL. One of the biggest problems that we have because California has a waiver is they don't even have to consider affordability outside of California.

Mr. WALDEN. Explain what you mean by that.

Mr. MCCONNELL. Well, California has ability if they control 14 other States that signed up with them on so if they decide that they don't want to participate in the national program, go along and they take their ball and they go play with somebody else, then what happens is they do not have to consider how much it costs outside of the State. They only have to consider, they are only looking at the State of California, not even these other 14 States and the problem with that is it results in a rationing of vehicles but the cost, you have got three different people. You have got to know some certainty in the automobile business to design cars in the future.

Mr. WALDEN. Right.

Mr. MCCONNELL. How much cost is and they don't even have to consider, the EPA does not even have to consider customer acceptability.

Mr. WALDEN. Right.

Mr. MCCONNELL. So they can stack on the cost but quite frankly that is the problem and that is the reason, you know, and you go back and forth with one national standard that this body has for fuel economy.

Mr. WALDEN. Got it, I want to try and get to the other two. Mr. Montgomery, I am running out of time.

Mr. MONTGOMERY. I think the answer really comes down to there is no such thing as a free lunch that in our economy we have every incentive is for energy efficiency, using energy wisely and minimizing the cost of production. That is not true in China and that is why China can catch up so easily and since there is no free lunch if we are expending more of our resources on expensive energy like renewables, they are not available for producing the other things that people desire to live on and have quality of life.

Mr. WHITFIELD. Thank you.

Mr. TERRY. I appreciate that, yes, whatever.

Mr. WHITFIELD. Your first name is Lee, right?

Mr. TERRY. Yes, yes.

Mr. WHITFIELD. Thank you.

Mr. TERRY. Mr. McConnell.

Mr. MCCONNELL. Yes, sir.

Mr. TERRY. I appreciate you being here even though you referenced the CAFE.

Mr. MCCONNELL. But I was aware of the name.

Mr. TERRY. But that was a great process because A, it did involve the already existing agency that has the expertise in deter-

mining fuel efficiency in a very scientific way. Not a political way and it was a byproduct of Congress, signed into law by the President. That was very carefully crafted, pushing the automobile industry as far as we could take it. Keeping in mind safety, keeping in mind the desire to keep jobs in America and the car industry and so that is probably part of my discussion I will have with the EPA representative of why the Administration and the EPA now wants to duplicate, replace, undo what Congress did.

Mr. MCCONNELL. Well, we certainly appreciate that. I will say that the EPA is wasting millions of taxpayers' dollars on duplicating NHTSA's research in fuel economy for tailpipe emissions.

Mr. TERRY. Probably creating a job.

Mr. MCCONNELL. It is going to cost a lot of jobs.

Mr. TERRY. Well, and you had mentioned that California that you and Mr. Walden discussed but there was a statement by one of the members that there is one national standard but yet that is not what I hear and that doesn't seem to be what EPA is striving for. Would you explain?

Mr. MCCONNELL. Yes, there are, they are regulated by, there are three agencies, three laws and three rules, and they have termed this, I guess it is a pretty nifty thing they did was they call three different standards one national program. I mean it is a fiction. You have the correct one national program and that is CAFE and it is implemented by NHTSA.

Mr. TERRY. How does that affect the car dealers and auto manufacturing in the United States?

Mr. MCCONNELL. Well, first of all to me one of the biggest things is you can't have one State setting the national standard but it affects us because I buy the cars from the manufacturer. They don't consign them to me. I have these cars on my lot. If they are not, if you don't take into consideration what your plan does, CAFE does, customer acceptability and choice because the customer is the one that makes the decision. They have a choice. They can just keep riding in that car they have got and work on them and we are super busy in our shop because that is what people have done after the recession but it costs a lot of money and it is a lot of duplication. You know, when you are in business and you are planning, what you need is clear, concise guidance and I believe that one national standard under CAFE with NHTSA implementing with all of the safeguards, I think you will get the CO_2 reductions. You will get to the goal but you will get to a goal that is realistic for the marketplace also.

Mr. TERRY. That is part of our goal here. All right, I appreciate that.

One last question to Dr. Montgomery because I felt like I was in an alternative universe when we were having a discussion about green jobs and how great a job that China is doing in manufacturing all this equipment but the reality is it is being manufactured over there because it is inefficient to manufacture it in the United States where it was designed and engineered. You answered that or brought that up in your report. Would you expand on that? Do you think it is true that China is just doing this altruistically?

Mr. MONTGOMERY. No and I think there are probably two or three points about China. The first one being, it is ironic because 2 weeks ago I was testifying in the Senate hearing on green jobs where one of the witnesses was from the steel workers union which had filed the 301(b) trade complaint against China's internal subsidy practices which were enabling it to produce the wind and solar and other equipment that is now being used around the world and in the United States, and preventing U.S. firms from getting in there. So what we are looking at is not environmental policy for China. It is strategic trade policy as it has always been and do we want to imitate that? Well, if China is in violation of the WTO for subsidizing its industries, we would be as well but the real point about all of that has nothing to do with environmental regulation. China is not creating those industries by making its own country clean. It is creating them by subsidizing their exports as it has always done to create industries. And I think the other point about China is that China has a state of institution and I have been writing about this for years that lead China in the past five times the energy use for dollar of output as the United States. That is coming down but it is coming down because it is so hideously inefficient it is in their economic interest to do it. We have a well-functioning state of markets here and we don't have that free lunch.

Mr. WHITFIELD. Thank you, Mr. Terry.

Unfortunately, we have votes on the floor. We have three more and then that is it for the date but before we go, Dr. Burgess, I am going to recognize you for 5 minutes.

Mr. BURGESS. Thank you, Mr. Chairman.

Mr. Montgomery, just to stay with you for a moment, we are going to hear on the next panel testimony about the health hazards of carbon dioxide and do higher energy prices carry with them any inherent health risk vis a vis keeping open medical offices, health centers and this type of thing. Does that affect the availability of medical care or health care?

Mr. MONTGOMERY. Yes, it does and it is really a problem the EPA refuses to do long risk analysis in this area. If we are going to look at risks from greenhouse gas emissions, those are highly speculative, highly uncertain and anything we do in the United States will have only a miniscule effect on them. Carbon dioxide is not like ozone. I mentioned ozone in Pasadena. Ozone in Pasadena was created in Beverly Hills, blew across and ended up in Pasadena and it produced tremendous health effects. Greenhouse gas emissions are mixed in the entire atmosphere and we are not going to change them through these regulations in a way that is even worth bothering to try to calculate unless we assume all of the rest of the world does what we are doing and that is what EPA tends to do. And so there is a small health benefit from actions that we actually take in the United States but on the other side of it, you are absolutely right, higher energy costs make air conditioning harder for people to afford. We know that the lack of air conditioning has been the primary reason for deaths during heat episodes in Chicago and other places and it takes a risk, long risk analysis which EPA did not do in determining that on balance the health risk justified the standards.

Mr. BURGESS. Of course, I suffer from asthma myself and I know what triggers there are. I try to avoid them as best I can but I have never associated carbon dioxide with an asthma trigger. It just doesn't work out medically so I appreciate your comments in that regard. On the, you know, you talked a little bit about some of the multiplier effects. Is there a way to apply the multiplier effect in reverse to this type of situation?

Mr. MONTGOMERY. It is interesting. There is a valid way to do it and I think the work with Jorgenson and Wilcoxen and have been doing and asking how do health effects of criteria pollutants that cause asthma affect worker productivity and they put that into their large kind of assessment of not greenhouse gas regulations but the past Clean Air Act regulations like the socks and ozone regulation clearly had health benefits. There is a way to bring it and in terms of dealing with greenhouse gas emissions, it really isn't applicable because what we are talking about are health effects that are dominated by temperature changes in tropical latitudes that lead to increased kind of vector populations that cause malaria and such diseases. So it is a global public health problem but the solution for it is global public health methods. For example, going back to DBP we could wipe out the malaria vector, no matter what the temperature was.

Mr. BURGESS. I see.

Mr. MONTGOMERY. So there is an ironic point about multiplier analysis because if you do the kind of multiplier analysis that PERI is doing, they argue quite explicitly over and over again that the reason they are getting increased jobs is because greenhouse gas policies favor labor intensive industries and they put more people to work that way. Well, if we have a lot of illness in the country then businesses would have to hire more workers to hire to replace their workers who were sick in order to get the same level of output and so if you applied their multiplier you would get the ridiculous conclusion that who or health actually increases jobs. It is not a reasonable conclusion for what you get out of that kind of a multiplier analysis.

Mr. BURGESS. Dr. Reicher, let me ask you a question if I could. You were at Google previously? Is that correct?

Mr. REICHER. Yes.

Mr. BURGESS. And when you were there, did your company ask the Chinese government to institute the type of greenhouse gas reductions like the cap and trade proposals that we had before this committee 2 years ago?

Mr. REICHER. Could you repeat the question? I am sorry.

Mr. BURGESS. When you were at Google did you or did Google ask the Chinese, did your company, Google, ask the Chinese government to institute any type of mandatory greenhouse gas reductions such as would have been required under the Waxman-Markey legislation that we debated in this committee 2 years ago?

Mr. REICHER. I don't think the company is in the position to.

Mr. BURGESS. Well, you support or at least I got the impression you support a cap and trade type proposal in this country. Did you ever ask the Chinese government to institute a cap and trade proposal?

Mr. REICHER. I did not ask the Chinese government to institute a cap and trade proposal. I am in favor of comprehensive energy and climate legislation. There are a whole host of means to get there and I think we should get started for economic reasons, and for security reasons, and for environmental reasons.

Mr. BURGESS. But you and Google at no time insisted that the Chinese government follow the same type of protocol that has been advocated?

Mr. REICHER. Again, I was not in conversations with the Chinese government about greenhouse gas regulations.

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

Mr. WHITFIELD. Well, once again I apologize to you all. I hope that you maybe will be able to stay another 10 minutes or so. We have three votes on the floor. I don't think it will take long. We will be right back. Hopefully, I think most of our members will be back that haven't asked questions so we look forward to seeing you in a few minutes.

[Recess]

Mr. WHITFIELD. I call the hearing back to order.

At this time, I will recognize Mr. Gardner of Colorado for 5 minutes.

Mr. GARDNER. Thank you, Mr. Chairman, and thank you to everyone for putting up with the schedule today. I appreciate your time and certainly your expertise.

A couple of weeks ago we had Administrator Lisa Jackson of the EPA testify before the subcommittee and I want to read a quote that she had in our dialog. She said and I quote, "There are tremendous opportunities in rural America for the economy to continue to grow as it has thrived over the past several years." This is just a couple of years ago as the economy had in her belief, her opinion has thrived over the past couple of years. So when I asked her to clarify and whether she really meant the economy has thrived over the past several years her response again and I quote was, "Rural America's economy has done fairly well as the rest of the country has seen the housing market and economy really do poorly." Well, in 17 out of the 64 counties in Colorado, they had a population decline, all of them rural, most of them rural. And many of the counties in my district, they have lost population and I am quite disturbed actually that the nature of the assertion made by Administrator Jackson really shows how out of touch the administrator is when it comes to the economic well-being of our, my State, my district and this country.

I wanted to get your thoughts quickly on what is happening to our economy and economic policies in this Nation when it comes specifically to some of the testimony that was given today and some of the statements that were made. I wanted to, excuse me, find it here. Some of the questions have been offered a little bit about the nature of regulations, the impact of those regulations and what it means for our rural economies in particular. Do you think the greenhouse gas regulations will impact our rural economy, Mr. Carey?

Mr. CAREY. Congressman, yes, I do. There is no doubt about it. The greenhouse gas will directly affect jobs.

Mr. GARDNER. Mr. Cicio.

Mr. CICIO. Some of my companies are fertilizer producers. About 75 percent of the cost of making fertilizer is the cost of natural gas and these regulations would indeed increase energy costs.

Mr. GARDNER. Mr. Joyce.

Mr. JOYCE. Yes, we would see it across the board, particularly with the farmers and the livestock sector.

Mr. GARDNER. Mr. McConnell.

Mr. MCCONNELL. I don't think I have anything to add to that.

Mr. GARDNER. Mr. Montgomery.

Mr. MONTGOMERY. Yes, I would agree with both that the costs of agriculture inputs are going to go up and that cattle is probably going to be suffering both because it uses other grains, and I think the other part of this is that the EPA regulations are not really, I don't see a way that they are going to include activities like sequestration and other farm-based activities that could potentially be profitable as a way of providing offsets for greenhouse gas emissions under a broader and more comprehensive policy.

Mr. GARDNER. Mr. Reicher.

Mr. REICHER. Some of those impacts will be positive and some of them will be negative. If you are in the wind business it could be quite positive. If you are in the natural gas business it could be quite positive.

Mr. GARDNER. What if you are in farming and you grow crops?

Mr. REICHER. It all depends on what you are farming. The opportunities around biomass for power for fuels are very significant and so again like so many answers to so many of these questions today, Mr. Gardner, depends on the specifics.

Mr. GARDNER. Mr. Cicio, a statement by the EPA was made earlier that said when it was talking about he pays authorities to control carbon emissions that that bill would deprive American industry of investment certainty and new incentives for upgrading to advanced to clean energy technologies. Do your members feel deprived and that they are not willing to make investment because of this regulation, the lack of this regulation?

Mr. CICIO. No, I have not heard anyone say that.

Mr. GARDNER. Thank you.

Mr. Reicher, interested in your comments on the nuclear power and I believe you talked about the need to actually improve energy permitting projects and also nuclear power permitting. What specifically do you think we could do to increase the presence of nuclear power development and to improve energy project permitting and site?

Mr. REICHER. Well, Mr. Gardner, I think one of the challenges that advanced nuclear faces, advance renewables face, a whole host of these technologies face is how you get the first large-scale commercial plant financed and built in this country. It is fairly straightforward to get the little prototype built, venture capital.

Mr. GARDNER. Well, finance is more than permitting. You specifically said permitting.

Mr. REICHER. Oh you said well, it is two things. One is we have got to get those first-of-a-kind commercial plants built. That is where I think the clean air and the deployment administration and its ability to finance.

Mr. GARDNER. On nuclear power, what can we do for permitting?

Mr. REICHER. Permitting, there is to issue them. The Nuclear Regulatory Commission has taken quite a look at ways to streamline permitting. I am not, I don't know the details of the changes they propose but there are a whole host of things but you are not going to get them built if you can't get them financed and that is the real issue at this point.

Mr. GARDNER. Do you think we should include hydropower as part of the clean energy standard?

Mr. REICHER. I think a clean energy standard should be very broad and should include all the renewables and it should include energy.

Mr. GARDNER. Including hydropower?

Mr. REICHER. Yes, including hydropower.

Mr. WHITFIELD. Mr. Inslee, you are recognized for 5 minutes.

Mr. INSLEE. Thank you.

I want to ask Mr. Reicher about the public's belief about this issue of whether or not we should stop the federal government from doing its job. There is basically an effort here which is pretty incredible to me to tell the Environmental Protection Agency they can't enforce the provisions of the Clean Air Act which is like telling the FBI they can't arrest terrorists or cops that they can't arrest bank robbers. We are intentionally—folks around here want to intentionally disable the ability of the government to do its statutorily mandated job. To me that is pretty amazing so I wondered what the American people thought of that and we did a little looking and the people I talked to where I live in the State of Washington certainly don't think by huge majorities the people I talk to don't think that is a very good idea to tell the federal government it can't do its job, to intentionally shackle it and put its handcuffs on and let polluters pollute. So to check out whether I am just talking to the wrong people, I did a little research and to what the polling would disclose Americans think. It was pretty timely because the poll came out by the public policy polling, NRDC, just the other day. It showed that 68 percent of Americans were opposed to delaying EPA reducing carbon pollution by enormous majority, 68 to 32 percent. You can't—it is hard to get 68 percent of Americans to agree that baseball is the American sport but we got 68 percent of Americans. Then you look at if you do it on a more grandular level I saw another poll done by I believe the sustainable business or I read about it at sustainablebusiness.com of 16, excuse me, 19 congressional districts asking a very similar question after asking both sort of arguments on both sides of this very fair poll showed that in 19 congressional districts represented by Republicans, in those Republican districts 66 percent of people including 45 percent of Republicans and 62 percent of Independents found that they didn't want the EPA to be disabled. There is a third poll, I don't have the results right in front of me but very similar results by almost two-to-one margins Americans didn't want to disable the federal government from doing its job to reduce pollution. Now, I have some theories as to why Americans believe that. I think it is because Americans are optimistic and know that we can do innovations and create new jobs associated with these new ways of reducing pollution but, Mr. Reicher, I just wondered if you wanted to express thoughts about why you think Americans feel so strongly that peo-

ple are out to lunch who want to disable the federal government here.

Mr. REICHER. Well, Mr. Inslee, I think it starts with the fact that there is a basic understanding that climate is going to have serious, serious impacts on human health and the environment and you start with that presumption as we did with all the other sort of pollutants we have been dealing with and that motivates people to end of saying, you know, we want our government to take action. I go from there to say the Supreme Court said figure out whether carbon is a pollutant. The EPA took that and figured out that it was and said what are we supposed to do when it is determined to be pollutant? We are supposed to go out and begin to put some controls on it so I think the public recognizes that we are dealing with a serious risk. The Supreme Court has weighed in. The relevant agency has weighed in. Plus, and this is important, our investment community Wall Street and Silicon Valley has said figure this out. If you want money to stay in this country for clean energy investments, figure out whether or not you are going to be regulating this. Figure out whether you are going to put energy standards in place, pollution standards in place to deal with this carbon. As long as we are not going to make that decision, we are going to see massive amounts of capital flow to other countries where they have made that decision.

Mr. INSLEE. So let me suggest one more reason huge majorities of Americans think it is a bad idea to disable the EPA, business people believe this. In the last 2 weeks I have had two business groups in the State of Washington come to me and tell me what climate change is doing to their business. The people grow oysters and clams, their industry, their industrial model is at risk today because of the ocean associated with carbon dioxide pollution. They want a solution to this problem. They are losing their industry in the west coast of the United States. This is a long time industry that is important in Puget Sound where I come from. This morning I had the berry growers from the northwest come to tell me and tell me that 50 percent of the actually it was grapes were essentially lost because of it is either a fungus or a bacteria associated with changes in climate they believe and they were asking me for help to solve this problem. If we don't deal with this problem we are going to lose jobs. This is a job creation engine like China gets and we don't and I hope we will wake up in the next 4 seconds and thank you, Mr. Reicher, thank you.

Mr. REICHER. Thank you, Mr. Inslee.

Mr. WHITFIELD. Thank you, Mr. Inslee.

At this time, I will recognize Mr. Bilbray for 5 minutes.

Mr. BILBRAY. Thank you.

Mr. McConnell, you made a reference to CARB and in fact I served 6 years on CARB. You made reference to the air resources board in California and I served 6 years there and 10 years on ARB district, two stints as chairman and I would like to remind you that it was California that told Washington in 1992 that the mandate that methanol was put in our fuel stream was not an environmental option. It was environmentally damaging. So Washington sometimes gets it wrong and we pointed out that people who claimed to be environmentalists in Washington aren't necessarily

going to depend on in the long run and I think that experiment history is going to show is a major, major mistake and I wish the people that were so self-righteous then will now look around and say maybe we ought to try to get our science down first before we start making claims. And I think MTD and the methanol in the fuel line, you know, has been proven again and again that the so-called experts then in Washington, D.C. were behind this at CARB.

But if I could propose to you, if the federal government could pass a law today that would improve your fuel mileage and reduce your emissions by 22.6 percent, what would be your industry's response to that?

Mr. MCCONNELL. Well, I don't represent the manufacturers.

Mr. BILBRAY. But as someone selling the product.

Mr. MCCONNELL. Well, I believe that California should have a voice just as but no more than any other State, provide data, political clout that they have but we feel like that we don't have a problem with reducing CO_2 emissions. We do not.

Mr. BILBRAY. OK, let me interrupt you. Look, Mr. McConnell, if I could tell you again that I have a study that shows 22.6 percent reduction in emissions and fuel mileage and it will not cost one cent to produce a car or no one more cent to produce a car. If I could show you that study, would you be willing to say maybe we ought to consider implementing these mandates if it doesn't cost one more cent to produce an automobile in this country?

Mr. MCCONNELL. I would be happy to do look at the study. What needs to happen though is CAFE is laid out.

Mr. BILBRAY. Let me go to CAFE. Let us go to CAFE, are you talking 100 percent of fossil fuel? Are you talking CAFE standards with 10 percent ethanol? Are you talking 10 percent algae fuel? What fuel mixture here because we have a lot of fuel mixtures here and that is one thing when we talk about CAFE that the renewable fuel mandate has actually reduced the ability for automobiles to get mileage, something that nobody wants to talk about in this town.

But let me go over to you, Mr. Reicher. Mr. Reicher, if we could mandate 22.6 percent more fuel efficiency and emissions, wouldn't you say that is something that we should be looking at especially if we claim we are in a crisis?

Mr. REICHER. Sounds like a smart way to proceed.

Mr. BILBRAY. The problem is what it does it is not a mandate on the private sector. It is a mandate on government. Traffic management, inappropriate traffic management, every time you stop at a four-way stop, you remember you are polluting five-times more than if you were allowed to roll through with a yield sign. This town is quick at pointing fingers at you and your industry but those of us in government will walk away from something that studies have shown could be major breakthroughs but because it is easier to be against the business community and not the other way. And as somebody who has worked on these issues for decades, I am frustrated with the people that come out of Washington claiming that they are going to save the world by turning corn into fuel or, you know, taking methanol and converting it over, and not looking at the longer impact. And I am sorry, I hear you attack CARB, the CARB that I see today coming out is a political extension. We have been, our science has been pretty darn good.

One of the things our scientists want to talk about is, Mr. Reicher, the last I checked with the UN our—the Chinese economy is about one-tenth of our economy, right?

Mr. REICHER. I don't know the specific statistics.

Mr. BILBRAY. OK, well let us just say this China is implementing 20 nuclear power plants. We are implementing two. Does that well, let me just say on that, I can give you that number and the executive secretary of the UN National Framework and Convention on Climate Change says he has not seen a credible scenario that does not have nuclear as a major part of their mixture. In fact, even the report by the Intergovernmental Panel on Climate Change states that a robust mix of energy sources including nuclear must be included. Now, do you believe that two out of an industry that is ten times as big as China is a robust commitment to implementing clean air strategies with nuclear power?

Mr. REICHER. Mr. Bilbray, I came in and testified in my opening statement that we should adopt a clean energy standard that includes most of these technologies.

Mr. BILBRAY. Mr. Chairman, may I ask for 1 more minute on this item please just to follow-up?

Mr. WHITFIELD. Without objection.

Mr. BILBRAY. Mr. Reicher, the State of California does not allow nuclear power today and my colleagues at the ARB are not allowed to implement a robust nuclear program while we are talking about the climate being in crisis. My concern is my colleagues in California claim they care about the environment and are willing to attack the private sector but are not willing to do things like force government to change the way it operates so we clean up our act. Your comment on that?

Mr. REICHER. Mr. Bilbray, in that regard I would urge you to take a careful look at a national clean energy standard because it could deal with some of these inconsistencies that we have State to State over a whole range of technologies. That is one way to proceed if you are bothered by the inconsistencies State to State, take a look at what Mr. Barton supported in his amendments last year.

Mr. BILBRAY. Wouldn't you agree that it is one thing to give a loan guaranty? It is another thing not to allow it to be permitted, for government to outlaw it. In fact, let me say this as somebody who has worked on environmental regs, we talk about a Manhattan project for energy independence in this country. Ladies and gentlemen, the Manhattan Project would not be legal under existing law. You couldn't even site the test site because of Endangered Species Act. That is the kind of barrier that those of us in Washington who want to address this crisis have to be willing to stand up and address. Thank you, Mr. Chairman.

Mr. WHITFIELD. I recognize the gentleman, Mr. Olson from Texas for 5 minutes.

Mr. OLSON. I thank the chair.

Mr. Joyce, my first question is for you. First I want to thank you for being part of the economic engine that drives America, small business.

Mr. JOYCE. It is my pleasure.

Mr. OLSON. In your testimony you said that the environmental regulations have cost your family business upwards of $150,000.

How many more people could you hire if you didn't have that excessive cost and more importantly, how many of your current jobs are at risk right now if greenhouse gas regulations become law?

Mr. JOYCE. We can hire two additional people if we weren't doing those as required of us to do but our bigger concern is the uncertainty and the misinformation surrounding what is going on with the EPA regulations currently. We are so concerned because right now they are starting big but we know that will back up and we understand the difficulty of permitting projects even at the State level so every time something makes a project difficult, it makes it harder to get it financed. It is very difficult to finance them now so we think more and more projects theoretically could be taken off the table. We have great concern about that but what our bigger concern is and my concern as a citizen is we are in an energy crisis and we need to look at every single option out there to create more energy. And, you know, again I said I hung my hat on green energy and we do a lot in that arena but it doesn't work without new coal plants, without new nuclear plants, without creating additional energy because we are still birthing babies, we are still graduating people from college, we are still building houses and we want to be a manufacturing factor. So I sit here and I think to myself where is the outrage? Where is the outrage and the Chinese are going to corner the energy market sooner or later and we are not taking steps to create power now and electricity is a key piece of it. And I want to see our Nation look at ways to get every option on the table now and that is our concern.

Mr. OLSON. Yes, sir, what we call up here the all-vote plan. Thank you for that answer, sir.

Mr. Montgomery, a question for you, sir. EPA Administrator Jackson often touts the creation of jobs by implementing new green control technologies. You have been in this field for about 40 years. Will the mandate to comply with greenhouse gas regulations produce a net job growth here in the United States as Administrator Jackson claimed, yes or no?

Mr. MONTGOMERY. No.

Mr. OLSON. Do you want to elaborate on that?

Mr. MONTGOMERY. OK, it will certainly produce a shift. It will produce a shift or resources in industrial activity toward producing that pollution control equipment but it will be taking those resources away from producing other things that people demand and contribute to our standard of living. It is not to say it might not be worth it if you judge that the benefits are large enough but it is clearly going to be a cost. At best, it is going to involve moving people from one kind of job to another and not creating net new jobs but on top of that it is going to be a drag on productivity growth and investment which is going to slow the rate of growth in the economy overall. And this is something that has been seen by economists who have studied this going all the way back to work that Jorgenson and Wilcoxen did 20 years ago looking at the effect of the Clean Air Act amendments themselves. They found that yes, there were some industries that were doing quite well producing that pollution control equipment but the regulations were essentially a tax on capital investment so it slowed down capital investment. It reduced the growth in worker productivity be-

cause unlike the Luddites who do green job studies, they actually know from looking at history that the primary driver of productivity growth is increasing capital investments to make workers more productive. So all of those processes are slowed down by the higher costs that are imposed on the economy by the regulations so that overall there is a depressing effect on our rate of growth and internally there is some shuffling around of jobs from doing one thing to doing another.

Mr. OLSON. So no new green technologies, thank you for that answer and my final question is going to be for Mr. Carey. Mr. Carey, coal provides about 45 percent of our electric power. If the EPA regulations were to go forward as planned from what your testimony earlier today that is about 75 gigawatts that are at risk?

Mr. CAREY. Within that range, Congressman.

Mr. OLSON. How would we replace the capacity of the coal industry?

Mr. CAREY. That is the 64,000 not gigawatt question but $64,000 question, Congressman. There is no way.

Mr. OLSON. Any idea how many jobs it is going to cost us?

Mr. CAREY. Well, if we are looking at a 70 percent reduction in the amount of coal, it is a 70 percent reduction in the amount of coal jobs with a multiplier of 10. So we are in the hundreds of thousands.

Mr. OLSON. Thank you for that answer.

Mr. WHITFIELD. Mr. McKinley of West Virginia, you are recognized for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman. It has been a long day and we have broken twice. It sounds a little bit like Groundhog Day. We are back here again for the third time to try to get through all of this. After being towards the end of this questioning it appears a lot of the questions have been asked but so I just want to kind of summarize where I am so when I go home tonight. It appears that there seems to be a consensus that energy costs are going to rise if we have the greenhouse gas regulated under the Clean Air Act. There is also a consensus that that will have a negative impact on industry, manufacturers. If they are negatively impacted, we are going to lose jobs. I got a letter and there were comments made that this is just a Republican thing but here's a letter from the American Iron and Steel Institute and it is a long letter so I am not going to go through it. I am going to ask that it be put into the record.

Mr. WHITFIELD. Without objection.

[The information appears at the conclusion of the hearing.]

Mr. MCKINLEY. Thank you. And he goes on in his letter about the, just talks about the new regulations will create permitting obstacles in investing in new and renovated facilities, impose significant additional cost on domestic steel producers. The development of new environmental regulatory proposals across the country it is obvious will have a deleterious effect on them. But he goes on to say the unprecedented speed of the EPA's effort to regulate the greenhouse gases under the Clean Air Act threatens serious economic disruption. The greenhouse gas emissions under the Clean Air Act will create disincentives to invest, potential for new project construction delay and increased litigation risks. He goes on to say

for the Institute that it is not partisan. This is business. This is what it is all about here. We have 15 million Americans out of work today and we are letting the EPA continue to cause this kind of challenge. And he goes on to say it will raise operating costs which will place our American steel manufacturers at a competitive disadvantage while allowing overseas competitors to continue to increase their missions. The result would be limited environmental gain but significant economic challenges including further elimination of valuable American manufacturing jobs especially for energy-intensive, trade-sensitive industries.

I don't understand. I have only been here in Congress for not even 60 days and I don't understand why they don't get it. To me it is axiomatic. This is fundamental economics 101. Why is it that they don't get it around here? Am I the one out of step, Mr. Cicio?

Mr. CICIO. I have very diverse energy-intensive manufacturers including some integrated steel companies plus recycle steel companies and I can, there are lots and lots of stories of truthful events where these steel companies have had to shut facilities down because of a tenth of a cent increase in the price of electricity. There are chemical companies that compete on a global scale with companies halfway around the world where they compete for a tenth of a cent per pound of a product. We are gripped and this is what I said in my testimony, our country and the manufacturing sector are gripped in competition and many times our competition are governments wrapped around companies but they are governments and they are subsidized.

Mr. MCKINLEY. But my question, why don't they get it? Why doesn't when we have so many people out of work, we are threatening possibly one more time another round of employment losses at a time when we need our energy, coal, nuclear, all and we are threatening ourselves. Yes, sir?

Mr. MONTGOMERY. This is my personal opinion and but it is this I think is a very good example of how Congress is not working well and it is a very good example of how hard it is to take on a big issue. I would say that the first lesson in environmental economics is you have to compare the cost of a regulation to the benefits that you get. Well, when the costs of a regulation are large and the benefits are in the future, it is very hard to convince your constituents that that is a good thing to work for so the analysis instead of being an objective description of what is likely to happen turns into a claim this isn't a hard decision after all. There aren't any costs because they go away and I am afraid that that is how I see the debate being destroyed here.

Mr. MCKINLEY. Thank you.

Mr. WHITFIELD. Mr. Scalise, you are recognized for 5 minutes.

Mr. SCALISE. Thank you, Mr. Chairman.

The theme of today's hearing is the greenhouse gas emissions and specifically the impact of these regulations on American jobs and I think when we talk about American jobs we had a hearing a few weeks ago. It has been referenced a few times with EPA Administrator Jackson and then we had a panel right after Administrator Jackson spoke and it was a panel of business people, employers in this country and it was like there was parallel universe. You had the head of EPA talking about how the regulations that she

is implementing are creating jobs and then you literally had employer after employer after employer talking about those very EPA regulations and the uncertainty associated with it are costing American jobs. And so maybe what the EPA Administrator Jackson is referring to were the jobs she is creating in China, in India, in other countries because when you talk to employer, they are actually looking at real job losses. There was a company, a major steel manufacturer that talked specifically about the burdensome permitting requirements and rising energy costs, increasingly industrial projects are no longer even being considered for development in the United States. It doesn't mean they are not being considered. They are just not being considered in the United States. They further went on to talk specifically about one of their projects, "Due to the uncertainty created by these regulations, we made the difficult decision to delay the $2 billion investment also delaying the creation of 2,000 construction jobs and 500 permanent ones." This was one company and we have heard this story over and over and over again, jobs that are leaving our country.

And I want to ask Mr. Reicher, you know, we have heard testimony in the past over this issue about carbon leakage and the fact that let us say you are not building a steel mill here in the United States. You are going to build it in Brazil which is a viable option when people are looking at where they are going to build it. So if they build it in Brazil you actually have maybe four times the amount of carbon and greenhouse gases emitted than if you would have built that plant today under current environmental regulations in the United States, not to mention the job loss. So first, do you recognize one, there is real job loss going on out there in America? And number two, that because of these regulations by EPA you are actually emitting more carbon because they are building these plants in other countries that actually have lower standards than us?

Mr. REICHER. Well, Mr. Scalise, responding to you and Mr. McKinley, I think this issue of why "they don't get it" is first, I think there are serious issues here with human health and the environment and it can flow from these greenhouse gas emissions. Secondly, there are in fact serious economic issues. We are losing vast investment in this country.

Mr. SCALISE. Because of these regulations and the uncertainty.

Mr. REICHER. To countries where they have in fact decided to control the emissions of greenhouse gases and other pollutants, to the EU, increasingly to China, to places where they are taking these issues seriously.

Mr. SCALISE. Well, what you are saying they are taking them seriously. They actually emit more greenhouse gases to do some of these manufacturing jobs in those countries like China. Do you recognize that?

Mr. REICHER. Fair question so all the more reason why we have got to step up to it and the rest of the world does as well. That is why we have international green age. That is why we go and negotiate these.

Mr. SCALISE. But do you recognize that the uncertainty though of what is going on in this country is costing American jobs? Will you at least acknowledge all of these, business after business?

Mr. REICHER. Certainly, the uncertainty on Wall Street are moving their money away from this country to countries where in fact they are putting controls on greenhouse gas emissions.

Mr. SCALISE. Well, Wall Street has done enough damage to our economy already.

Let me ask Mr. Montgomery something because I am on limited time and I apologize but, Mr. Montgomery, I am not sure if you read there was a study about Spain's experiment with this scheme of cap and trade, greenhouse gas emission regulation where they said they are going to create all these green jobs. What they found out later is for every green job they created they lost 2.2 jobs but then when they dug deeper into that 90 percent of those jobs they created were part-time jobs. So in essence for every green job they created they lost 22 full-time jobs in their economy. I am not sure if you are familiar with that Spain study or if you want to comment on that?

Mr. MONTGOMERY. Yes, there have been some criticisms of the study but I think it has made some very good points. One of them is just how phony the accounting for green jobs can be depending on what you are counting. The second one is that yes, the cost of the mandate or a subsidy is borne by the country that does it and Spain decided to put on huge subsidies and that both decreased their own competitiveness across the board and it attracted a lot of equipment to be built elsewhere.

Mr. SCALISE. Like we are seeing here.

And I only have got a few seconds left and I want to ask Mr. Joyce something because you talked about in your opening testimony and then I don't know if this was on behalf of NFIB or just your small business but you referred to a recent study by the U.S. Small Business Administration that found that the total cost of regulation on the American economy is $1.75 trillion per year and then further that the study reaffirmed that small businesses actually bear a much larger percentage. I think what, over 30 percent more of the cost than large businesses so the uncertainty in these regulations are killing small businesses primarily which is the real heart of our job creation in this country. I want to ask you to comment further on that.

Mr. JOYCE. Yes, absolutely because they are smaller, you know, smaller network of sales to diversify the cost of implementing whatever the regulation is so little businesses are widely more impacted with these regulations than big ones who have got, you know, staffs that run it and they just blend it in there and it goes away. This hits the little businesses very, very significantly.

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

Mr. WHITFIELD. I thank you and I want to thank the witnesses very much. We appreciate your testimony and I know you didn't plan to spend this much time with us but we hope maybe you will come back someday and this panel is dismissed.

Mr. BILBRAY. Mr. Chairman.

Mr. WHITFIELD. Yes.

Mr. BILBRAY. I want to thank you for having this hearing and let me just point out.

Mr. WHITFIELD. We are not through.

Mr. BILBRAY. I know I just before they leave though I think it is great to point out for 4 years there was an effort to green the Capitol and try to reduce our footprint here but in 4 years Congress is still burning coal to fire up the lamps over our head and I think that if that is any indication of the progress we have made it is just good luck.

Mr. WHITFIELD. Well, of course I like coal myself but we will call at this time on the second panel. we have Ms. Gina McCarthy who is the assistant administrator for the Office of Air and Radiation at the U.S. Environmental Protection Agency and, Ms. McCarthy, we appreciate you being us today. I trust that you have enjoyed yourself as much we have already and I will tell you we have adopted a new policy and we are supposed to start hearings at nine o'clock or 9:30 and we have no votes so that we can go straight through before anyone has to leave. So unfortunately it didn't work out that way today but we do appreciate your patience and your being with us very much.

Ms. MCCARTHY. Thank you, Mr. Chairman, it is nice to be here.

Mr. WHITFIELD. And with that, we will go on and recognize you for your 5 minute opening statement, Ms. McCarthy.

STATEMENT OF GINA A. MCCARTHY, ASSISTANT ADMINISTRATOR, OFFICE OF AIR AND RADIATION, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Ms. MCCARTHY. Thank you very much and again I want to thank the chairman and the ranking member, Rush, for inviting me here and the members of the committee to testify on this important subject.

Let me get started. I know you have listened to a lot of testimony so I will be as crisp as I can and then we can get to questions and answers.

But EPA is just starting to update existing Clean Air Act programs in order to address greenhouse gas emissions. The Clean Air Act tools that we have been using are exactly the same Clean Air Act tools that have been responsible for achieving dramatically cleaner air and important public health benefits at reasonable cost. With its 40 year history of success the Clean Air Act continues to be one of this country's greatest bipartisan achievements. Today EPA is releasing a peer review study of the cost and benefits of the Clean Air Act since 1990. It demonstrates both the Clean Air Act's tremendous public health benefits and well how cleaner air strengthens the economy. In the last year alone, programs implemented pursuant to the Clean Air Act amendments of 1990, are estimated to have reduced premature mortality risks equivalent to saving over 160,000 lives, to have spared Americans more than 100,000 hospital visits, prevented millions of cases of respiratory problems like asthma, to have enhanced productivity by preventing 13 million lost workdays, and have kids healthy and in school avoiding 3.2 million lost school days due to respiratory illnesses and other diseases that are either caused or exacerbated by air pollution.

EPA can't monetize all the benefits from recent Clean Air Act regulations but to the extent that we can this study tells us that the Clean Air Act provides $2 trillion in benefits in 2020 alone.

That is over $30 in benefits for every single dollar that we spend. This is a tremendous value for the American people. Most of the rules that gave us these huge gains in public health were adopted amidst claims similar to what we are hearing today, claims that they would be bad for the economy and bad for employment. Some claim that the Clean Air Act amendments of 1990 themselves would cost at least 200,000 or up to even 2 million jobs. In contrast to all of those dire predictions, history has shown again and again that we can clean up pollution. We can create jobs and we can grow our economy all at the same time.

Since 1970, air pollution has actually declined 63 percent while at the same time the economy has grown 204 percent. Discussions of job impacts often overlook the jobs that come from building and installing pollution control equipment. The Institute for Clean Air Companies estimated that over the past 7 years the implementation of just one rule, the Clean Air Act interstate rule resulted in 200,000 jobs in the air pollution control industry. In a recent Wall Street Journal op-ed, eight major utilities that will be affected by our greenhouse gas regulation said that, "Contrary to claims that EPA's agenda will have negative economic consequences, our companies experience complying with air quality regulations demonstrates that they can yield important economic benefits including job creation while maintaining the liability."

The Clean Air Act has also helped spark world-class innovations in the United States. For example, EPA vehicle emissions standards led to the development and application of a huge range of technologies like catalytic converters, onboard computers, fuel-injection systems, even unleaded gasoline. These innovations are now found throughout the global automotive market. In the vehicle emission control industry now employs approximately 65,000 Americans with domestic annual sales of $26 million.

The environmental technology and services industry employed 1.7 million workers in 2008, and that taps into the global market that is worth over $700 billion, and that is a market the size of the aerospace or the pharmaceutical industry. Globally, America can compete and lead in, I am sorry, can compete and lead in the environmental and clean energy sectors but only if we take steps at home to continue to innovate. As we drive towards cleaner air and clean energy we need to challenge innovation and challenge technology excellence.

We are now starting to achieve greenhouse gas, address greenhouse gases by applying Clean Air Act regulatory tools that have been used successfully now for 4 decades. EPA is compelled to do so by the Clean Air Act, the Supreme Court's decision, as well as sound science. These greenhouse gas tools that we are going to use require the agency always to take cost into consideration and they will allow the agency to move forward using commonsense, reasonable, measured requirements.

The first greenhouse gas rule EPA issued is already demonstrating how practical regulations can make sense for the economy. Last April, EPA and the Department of Transportation completed harmonized national standards to reduce greenhouse gas pollution from new cars and trucks. The vehicles sold in model years 2012 to 2016 will save 1.85 billion barrels of oil while reduc-

ing greenhouse gas emissions by 962 million tons. The rules were supported by both the auto workers as well as the auto manufacturers who recognize that these standards help them stay competitive in a global marketplace where fuel efficiency increasingly matters. We will also save consumers money. A 2016 model year vehicle will save you $3,000 over the life of that vehicle.

The regulatory focus on improved efficiency isn't unique just to motor vehicles. EPA is also focusing on energy efficiency as the preferred method of meeting greenhouse gas permit requirements for power plants and large industrial facilities. And let us all be clear, these new greenhouse gas permit requirements apply only when a facility is being a new facility is being built or when a company is making major modifications at an existing facility. The universe for these greenhouse gas permits are large greenhouse gas emitters but the universe is very small and it is manageable to achieve.

Leadership in new technologies combined with healthier workers and fewer air-related health effects have laid the foundation for robust, long-term economic growth and the employment that comes along with it. We shouldn't pass up the opportunity to use the Clean Air Act to promote efficiency, energy security, to protect public health because of the same inaccurate claims about job losses that have been leveled against major actions under the Clean Air Act for 4 decades now. Thank you very much.

[The prepared statement of Ms. McCarthy follows:]

Opening Statement of Gina McCarthy
Assistant Administrator, Office of Air and Radiation, United States Environmental Protection Agency
Hearing on EPA's Greenhouse Gas Regulations and Their Effect on American Jobs
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives

Chairman Whitfield, Ranking Member Rush, and members of the Committee, thank you for inviting me to testify on this crucial subject.

As you know, EPA is starting to update its existing Clean Air Act programs in order to address greenhouse gas emissions. The Clean Air Act tools that we will be using to do so are exactly the same Clean Air Act tools that have been responsible for achieving dramatically cleaner air and important public health benefits at reasonable costs. With its 40-year history of success, the Clean Air Act continues to be one of our country's greatest bipartisan achievements.

Today EPA is releasing a study that examines the overall impacts of the Clean Air Act since 1990, and demonstrates both the Clean Air Act's tremendous public health benefits and how cleaner air strengthens the economy. In the last year alone, programs implemented pursuant to the Clean Air Act Amendments of 1990 are estimated to have reduced premature mortality risks equivalent to saving over 160,000 lives; spared Americans more than 100,000 hospital visits; prevented millions of cases of respiratory problems, including bronchitis and asthma; enhanced productivity by preventing 13 million lost workdays; and kept kids healthy and in school, avoiding 3.2 million lost school days due to respiratory illness and other diseases caused or exacerbated by air pollution.[1] This study is the third in a series of studies originally mandated by Congress in the Clean Air Act Amendments of 1990 and reviewed by independent experts.[2]

EPA cannot monetize all of the benefits from recent Clean Air Act regulations; to the extent we can, however, this study indicates that the Clean Air Act will provide $2 trillion dollars in benefits in 2020 -- over $30 in benefits for every dollar spent.[3] This is a tremendous value for the American people.

That the pollution reductions achieved through the programs created by the Act have produced these results should not be surprising. However, few of the rules that gave us these huge gains in public health were uncontroversial at the time they were developed and promulgated. Most major rules have been adopted amidst claims that that they would be bad for the economy and bad for employment.

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[1] USEPA (2011). *The Benefits and Costs of the Clean Air Act from 1990 to 2020.* Final Report. Prepared by the USEPA Office of Air and Radiation. February 2011. Table 5-5.
[2] This study received extensive review and input from the Advisory Council on Clean Air Compliance Analysis, an independent panel of distinguished economists, scientists and public health experts.
[3] USEPA (2011). *The Benefits and Costs of the Clean Air Act from 1990 to 202.* Table 7-5.

Some business groups claimed that the Clean Air Act Amendments of 1990 themselves would cost at least 200,000 and up to two million jobs. [4]

In contrast to doomsday predictions, history has shown, again and again, that we can clean up pollution, create jobs, and grow our economy all that the same time. Since 1970, air pollution has declined 63% while the economy has grown 204%.[5] In fact, some economic analysis suggests that the economy is billions of dollars larger today than it would have been without the Clean Air Act.[6]

Peer-reviewed academic studies that have looked for large job losses as a result of environmental protection have failed to find such effects.[7] Many of the industry-funded models that predict large job losses fail to include the jobs created through the investment in pollution reduction, pollution controls, and the benefits to public health and productivity.

When discussing overall impacts on employment, it is important not to overlook the jobs that come from building and installing pollution control equipment. The U.S. boilermaker work force grew by approximately 35 percent, or 6,700 boilermakers, between 1999 and 2001 during the installation of controls to comply with EPA's regional nitrogen oxide reduction program.[8] Over the past seven years, the Institute for Clean Air Companies (ICAC) estimates that implementation of just one rule – the Clean Air Interstate Rule Phase 1 – resulted in 200,000 jobs in the air pollution control industry.[9] I would like to quote a recent Wall Street Journal Op-Ed by 8 major utilities that will be affected by our regulation of greenhouse gas pollution. They said: "Contrary to claims that EPA's agenda will have negative economic consequences, our companies' experience complying with air quality regulations demonstrates that regulations can yield important economic benefits, including job creation, while maintaining reliability."[10]

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[4] Hahn, Robert, and Wilbur Steger (1990). An Analysis of Jobs at Risk and Job Losses from the Proposed Clean Air Act Amendments (Pittsburgh: CONSAD Research Corporation).

[5] EPA, Our Nation's Air – Status and Trends through 2008 (Feb 2010).

[6] Dale W. Jorgenson Associates (2002a). *An Economic Analysis of the Benefits and Costs of the Clean Air Act 1970-1990. Revised Report of Results and Findings*. Prepared for EPA.[7] Richard D. Morgenstern, William A. Pizer, and Jhih-Shyang Shih . Jobs Versus the Environment: An Industry-Level Perspective. *Journal of Environmental Economics and Management* (May 2002) Vol. 43, no. 3 pp. 412-436.

[7] Richard D. Morgenstern, William A. Pizer, and Jhih-Shyang Shih . Jobs Versus the Environment: An Industry-Level Perspective. *Journal of Environmental Economics and Management* (May 2002) Vol. 43, no. 3 pp. 412-436. Berman E. and L. Bui Environmental regulation and labor demand: evidence from the South Coast Air Basin. Journal of Public Economics (Feb 2001) Vol. 79, no. 2 pp. 265-295.

[8] International Brotherhood of Boilermakers, *Boilermaker Labor Analysis and Installation Timing,* March 2005, EPA Docket OAR-2003-0053 (docket of the Clean Air Interstate Rule).

[9] November 3, 2010 letter from David C. Foerter, Executive Director of the Institute of Clean Air Companies, to Senator Thomas R. Carper (http://www.icac.com/files/public/ICAC_Carper_Response_110310.pdf (accessed February 8, 2011).

[10] Peter Darbee, chairman, president and CEO,PG&E Corp.; Jack Fusco, president and CEO, Calpine Corp.; Lewis Hay, chairman and CEO, NextEra Energy, Inc.; Ralph Izzo, chairman, president and CEO, Public Service Enterprise Group, Inc.; Thomas King, president, National Grid USA,; John Rowe, chairman and CEO, Exelon Corp.; Mayo Shattuck, chairman, president and CEO, Constellation Energy Group; Larry Weis, general manager, Austin Energy ,

The Clean Air Act has also contributed significantly to the creation of world class innovations in the U.S. For example, EPA vehicle emissions standards directly sparked the development and application of a huge range of automotive technologies, such as catalytic converters, unleaded gasoline, on-board computers, fuel injection systems, oxygen sensors, and on-board diagnostics. These innovations are now found throughout the global automobile market and the vehicle emissions control industry now employs approximately 65,000 Americans with domestic annual sales of $26 billion.[11]

Environmental technologies and services employed 1.7 million workers in 2008 and led to exports of $44 billion of goods and services, larger than exports of sectors such as plastics and rubber products.[12] In fact, the world market for environmental goods and services is worth over $700 billion, a size comparable to the aerospace and pharmaceutical industries.[13] Globally, America can compete and lead in the environmental and clean energy sectors, but only if we take steps at home – as we have been doing for the past 40 years – to drive forward and deploy these technologies.

The Clean Air Act's success is built on several pillars. First and foremost, the Act is a public health statute. Second, it requires the Agency to base decisions on the best available science. Then, when directing the EPA to write rules that impose specific pollution-control obligations on sources, the Agency generally is allowed, and often required, to take costs or feasibility into account, often by defining those obligations in terms of technologies and processes that are already being used by businesses operating in the real world.

We are now starting to address greenhouse gases by applying some of the same Clean Air Act regulatory tools that we have used so successfully for decades. EPA is compelled to do so by the Clean Air Act, the Supreme Court's decision in *Massachusetts v. EPA*, and the best available science, which strongly supports EPA's finding that greenhouse gases pose a threat to public health and welfare. These tools, which require the Agency to take cost into consideration, will allow the Agency to move forward with common-sense, reasonable requirements.

In fact, Administrator Jackson has made it clear, repeatedly, that this work will follow five key principles:

- Promoting common-sense strategies that encourage investment in energy efficiency and updated technologies.
- Using similar strategies to capture multiple pollutants.

"We're OK With the EPA's New Air-Quality Regulations," Letter to the Editor, Wall Street Journal, December, 8, 2010.

[11] Manufacturers of Emissions Control Technology (http://www.meca.org/cs/root/organization_info/who_we_are)

[12] DOC International Trade Administration. "Environmental Technologies Industries: FY2010 Industry Assessment. http://web.ita.doc.gov/ete/eteinfo.nsf/068f3801d047f26e85256883006ffa54/4878b7e2fc08ac6d85256883006c452c/$FILE/Full%20Environmental%20Industries%20Assessment%202010.pdf
U.S. International Trade Statistics U.S. Census Bureau (2010)

[13] Network of Heads of the European Environment Protection Agencies. 2005. "The Contribution of Good Environmental Regulation to Competitiveness." http://www.eea.europa.eu/about-us/documents/prague_statement/prague_statement-en.pdf

- Setting clear, achievable standards while maintaining maximum flexibility on how to get there.
- Seeking input from the citizens, industry, affected entities, other stakeholders, as well as our partners in state, local and tribal governments.
- Setting the standards that make the most sense – focusing on getting the most meaningful results through the most cost-effective measures.

The first greenhouse gas rule issued under pre-existing Clean Air Act authority is already demonstrating how sensible regulation can make sense for our economy. Last April, EPA and the Department of Transportation completed harmonized standards under the Clean Air Act and the Energy Independence and Security Act to reduce greenhouse gas pollution from new cars and trucks.[14] The vehicles sold in model years 2012-2016 will save us 1.85 billion barrels of oil while reducing greenhouse gas emissions by 962 million tons.[15] These rules were supported by both the auto workers and the auto manufacturers, who recognize that the standards provide for certainty, drive technological innovation, and help American automakers stay competitive in a global marketplace where fuel efficiency increasingly matters. They will also save the average buyer of a 2016 model year vehicle $3,000 over the lifetime of the vehicle, as upfront technology costs are offset by lower fuel costs.

We are building on this success with a next generation of rules for heavy duty trucks and light duty vehicles. These standards will further reduce our vulnerability to oil price shocks, reduce air pollution, and foster technological innovation that drives a world-class auto industry, all while reducing greenhouse gas emissions.

The regulatory focus on improved efficiency is not unique to motor vehicles. EPA is also focusing on energy efficiency as the method of meeting greenhouse gas permit requirements for power plants and other large industrial facilities that are building new facilities or making major modifications at existing facilities. A group of 11 power companies observed that: "EPA has proposed a reasonable approach focusing on improving the energy efficiency of new power plants and large industrial facilities."[16] This focus on energy efficiency should promote measures that reduce both emissions and long-term costs for facilities.

Finally, EPA has announced a schedule to update the Clean Air Act's New Source Performance Standards for America's power plants and oil refineries[17] by including carbon pollution standards. EPA must take cost into account in setting these standards. I am confident that our open, transparent rulemaking process for these standards will result in the kind of flexible, nationally consistent standards under which industries have successfully operated for decades.

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[14] 75 Fed. Reg. 25,324, *et seq.*(May 7 2010).
[15] *Id.* At 25,347 (Table I.C.2-2).
[16] November 15th, 2010 statement by the Clean Energy Group Clean Air Policy Initiative. (http://www.mjbradley.com/news_20101115_00.html).
[17] http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/d2f038e9daed78de8525780200568bec!OpenDocument.

As I wrap up, I want to underscore that establishing these rules on schedule will give regulated firms needed certainty about their future regulatory environment. Firms will know the rules for cleaner air and can get on with the business of driving a strong economic recovery. Leadership in new technologies, combined with healthier workers and fewer negative air-related health impacts, helps lay the foundation for robust long-term economic growth and the employment that goes along with it. We should not pass up the opportunity to use the Clean Air Act to promote energy efficiency, energy security, and public health because of the same types of inaccurate claims about job losses that have been leveled at many major actions under the Clean Air Act.

Mr. WHITFIELD. Thank you, Ms. McCarthy. I was reading an article recently of Duke University, the Nicholas Institute of Environmental Policy Solutions and in there they quoted you and you had said that if you apply the 100 09250 tons per year limit for greenhouse gases that it would require six million sources to obtain Title 5 permits and lead to 82,000 permitting actions under PSD resulting in an estimated combined cost of $22.5 billion to the permitting authorities alone. Now, I know you have the tailoring rule but without referring to the administrative necessity doctrine or the absurd results doctrine, doesn't your tailoring act explicitly violate the terms of the Clean Air Act as to the limits?

Ms. MCCARTHY. Mr. Chairman, I would tell you that your quote is correct. That is the reason why the administration puts together the tailoring rule and we believe that it is not only a legally sound approach to making sure that we.

Mr. WHITFIELD. But without reference to the administrative necessity or absurd result it does violate the precise wording of the Clean Air Act?

Ms. MCCARTHY. I am trying to explain to you that we believe that that is the best interpretation of Congress' intent when it is a new pollutant.

Mr. WHITFIELD. But you do recognize it does violate the explicit terms of the Clean Air Act?

Ms. MCCARTHY. I do not believe that it violates the Clean Air Act.

Mr. WHITFIELD. Well, your limits are above the 100 to 250 tons per year.

Ms. MCCARTHY. They certainly are and we approach it in a very measured way to make sure that we don't.

Mr. WHITFIELD. Thank you. Now, let me make ask you did your agency conduct a comprehensive economic or job analysis of the impact of the greenhouse gas regulations?

Ms. MCCARTHY. I am sorry. Could you say that again, Mr. Chairman?

Mr. WHITFIELD. Did your agency conduct an analysis of the impact of the greenhouse gas rules on jobs and the economy?

Ms. MCCARTHY. Yes, the greenhouse gas rules certainly we did with the light duty vehicle rule we have talked about that a little bit.

Mr. WHITFIELD. But on stationary sources.

Ms. MCCARTHY. On stationary sources the way in which the Clean Air Act works is that we are not setting a standard for permitting. Those permitting decisions are rightly.

Mr. WHITFIELD. So is your answer no?

Ms. MCCARTHY. My answer is that States do that in the course of doing the best available control technology permitting process.

Mr. WHITFIELD. But the EPA, you do not do that then?

Ms. MCCARTHY. Well, we do not know businesses' intent.

Mr. WHITFIELD. Do you all do any sort of analysis on how you are going to replace lost electricity generating capacity from any of the regulations?"

Ms. MCCARTHY. I do not anticipate the greenhouse gases will result the greenhouse gas regulations will result in any lost electricity generation?

Mr. WHITFIELD. So you don't think the regulations will cause the loss of any capacity?

Ms. MCCARTHY. In terms of electric generating, no, I do not.

Mr. WHITFIELD. OK, that bell wasn't my time but I am going to at this point recognize Mr. Rush for 5 minutes.

Mr. RUSH. Thank you, Mr. Chairman.

Ms. McCarthy, I really want to apologize first of all that you had to wait this long and most of the members have gone and we have suspended the activities on our floor and the media for the most part has left during your testimony so I apologize for that but necessarily we have to do what we have to do here.

Let me just ask you while today's hearing focused on the jobs impacted by greenhouse gas regulations under the Clean Air Act and there is no question that this Congress must focus on job creation. Unemployment rates are exceptionally high and joblessness is taking its terrible toll on our Nation and in your professional opinion what would be some of the consequences particularly economically but also environmentally and in the area of public health if Congress did enact such a bill as the Upton-Inhofe bill where the EPA ability to regulate greenhouse gases would be repealed without any type of legislative alternative that has been presented to us, can you?

Ms. MCCARTHY. Yes, I can speak to that and I appreciate the question. We are very concerned with the bill in terms of what it might do for our ability to make sure that businesses that want to actually be constructed or businesses that want to modify being able to make sure that those Clean Air Act permits are available to them. So we are very concerned that we protect the interests of the Clean Air Act, that we protect our ability to issue permits when permits should be required and deserved and that we move forward with the Clean Air Act as it was intended. Carbon pollution is a pollutant. It is a pollutant under the Act. It is a danger to public health and welfare. We believe we can take measured approaches to controlling that pollutant into making sure that as new facilities are constructed and major modifications are done that we minimize the kind of greenhouse gas emissions that are additionally emitted into the atmosphere.

Mr. RUSH. The idea that the Clean Air Act requirements can control carbon pollution have anything to do with unemployment problems to me is a sheer fantasy. We are suffering a worldwide global recession. Normally, the regulations don't cause anything. On the contrary they actually will benefit regulations caused the financial meltdown. All right, you testified that EPA recently prepared a white paper highlighting information which are the Clean Air Act and jobs and the economic in the United States. Are the findings highlighted in that paper based on peer review literature?

Ms. MCCARTHY. Yes, they are.

Mr. RUSH. And what did these peer review studies findings actually take on Clean Air Act regulations on jobs and the economy?

Ms. MCCARTHY. Well, what it found and it is rather remarkable is that when the economists looked at some of the most heavily regulated industry they did not find evidence that regulation leads to larger job losses. For example, there was an article by Morgan Stern that looked at four of the most heavily regulated industries

and it found that increased environmental spending does not cause a significant change in employment in those regulated industries. On average there was a gain of 1.5 jobs for every $1 million in additional environmental spending. Now, that doesn't mean that the Clean Air Act is a jobs act. It is clearly a public health act but the most remarkable thing is that for every dollar that you spend in order to clean up the air under the Clean Air Act, you get $30 in health benefits so it is a significantly effective public health measure. But the great thing is that it does have ancillary benefits of job growth and there is no evidence that it is a factor in significant job losses in the economy, in fact just the opposite.

Mr. RUSH. Can you give us some examples of the types of jobs created when we clean up the environment?

Ms. MCCARTHY. Sure, someone when they have to design and build and run and maintain pollution control equipment, those some ones are jobs. For example, installing a scrubber on a power plant can create up to a thousand construction jobs and a hundred permanent jobs. In addition, scrubbers require steel. That creates jobs as well. There was a study by the U.S. boilermakers that looked at jobs between '99 and 2001 and it found that their jobs grew by 35 percent that is 6,700 jobs. So what we find now is there is a thriving environmental protection industry. In 2008, that was $300 billion in revenues were generated from that industry sector, 1.7 million jobs, American jobs in that sector and they were exporting $44 billion worth of equipment and technology. We think that is rather a good success story.

Mr. BARTON. [Presiding] The gentleman's time has expired.

The chair now recognizes himself for 5 minutes.

Welcome, Assistant Administrator. Just for the record, are you a presidential appointee or a civil servant?

Ms. MCCARTHY. I am a presidential appointee.

Mr. BARTON. OK and how long have you held the position?

Ms. MCCARTHY. Since June of 2009.

Mr. BARTON. Thank you and what was your prior position within the Administration, if any?

Ms. MCCARTHY. It was not. I did not work for the Administration. I worked for the Connecticut Department of Environmental Protection. I was the commissioner of that agency.

Mr. BARTON. OK, thank you very much. Your opening in your statement in your testimony, prepared testimony talks about all the things that are the benefit of the Clean Air Act. It may surprise you but I was a supporter and voted for the Clean Air Act back in 1990. I mean it was bipartisan. I would say that the attempt to tie greenhouse gas regulation to the Clean Air Act is a stretch because in my opinion I don't believe that CO_2 is a pollutant under the definition of the Clean Air Act nor do I believe that it is a health hazard. Do you have any statistics that indicate CO_2 has caused any kind of a poisoning that requires emergency room assistance or anything like that?

Ms. MCCARTHY. CO_2 is not a toxic pollutant.

Mr. BARTON. So in terms of when you are talking in your testimony about the benefits of the Clean Air Act you talked about premature mortality savings and things like that, those types of criteria would not apply to CO_2.

Ms. McCarthy. No, Mr. Barton, that is where I would differ. I would tell you that CO_2 is very much a pollutant that impacts public health and welfare. I would tell you that CO_2 actually does contribute to ozone pollution which is a significant health hazard and I would tell you that the Supreme Court that really interprets Congress' intent for the rest of us told us that we had to consider greenhouse gas as a pollutant.

Mr. Barton. Well, actually the Supreme Court said that the EPA had to make a decision whether it should be regulated.

Ms. McCarthy. That is correct, consider it.

Mr. Barton. OK, do you know what the level of CO_2 right now generally speaking is in the atmosphere?

Ms. McCarthy. Actually, I don't have that figure.

Mr. Barton. If I was to say it was around 380 parts per million would you accept that in the ballpark?

Ms. McCarthy. That is probably right.

Mr. Barton. OK, do you know what a greenhouse that grows plants and food within a greenhouse, do you know what the average CO_2 parts per million is in a greenhouse?

Ms. McCarthy. I am sure you will tell me.

Mr. Barton. You don't have any idea?

Ms. McCarthy. No.

Mr. Barton. So if I say it is around a thousand which is what it is you won't dispute that?

Ms. McCarthy. No.

Mr. Barton. Do you know what you create in CO_2 when you answer my questions? Do you know what the amount of CO_2 coming out when you answer a question is? We have about 380 parts per million in the atmosphere. Commercial greenhouse gases exist in about a thousand parts per million and when you answer a question or when I ask you a question, I expel CO_2 at the rate of about 40,000 parts per billion. So how in the world can that be a pollutant? If it is, my good friend Bobby Rush would be gasping for breath right now and turning red in the face and my good friend, Mr. Waxman, I mean the fact is under any definition greenhouse gas if CO_2 is one are necessary for life.

Ms. McCarthy. No one is disputing that.

Mr. Barton. So I know you are here to be the good soldier and I know there is a massive world debate about the greenhouse gases but when we try to apply the Clean Air Act which I voted for and which a majority of the Republicans on this committee, in fact I think all but one or two voted for that were on the committee, it just doesn't work. It just the definitional terms are different so we have a difference of opinion on our side in terms of whether this is a necessary thing. Why do you need the tailoring rule to implement greenhouse gas regulations?

Ms. McCarthy. Greenhouse gas is as you know a new pollutant under the Clean Air Act. We took a look to ensure that the application of the Clean Air Act to the greenhouse gas pollutants was done in a reasoned, commonsense way. We wanted to make sure that we phased in the greenhouse gas regulations in a way that made sense, in a way that was manageable, in a way that would meet the intent of Congress. When we looked at that we decided and the Administrator clearly made a determination that their were many

small sources that could potentially be regulated like greenhouse gases, she made a determination that that didn't make sense under the law and so we issued the tailoring rule so that we got at the vast majority of greenhouse gases by regulating a minimum of the largest sources first.

Mr. BARTON. My time has expired. Before I recognize the next witness or I mean the next questioner, would you submit for the record the EPA's official position on the control technology if any that is best able right now to actually regulate greenhouse gases, if there is such a technology?

Ms. MCCARTHY. There are many technologies for greenhouse gases.

Mr. BARTON. Would you submit for the record those technologies and their cost effectiveness if you have that information?

Ms. MCCARTHY. I could certainly provide you a range of technology choices that we have put out in white papers to help guide a decision that are efficient technologies that help advance reductions in greenhouse gases.

Mr. BARTON. Thank you.

The chair inquires of the Minority Mr. Markey was the one here closest but Mr. Waxman is the ranking member. Who should? OK, the chair would recognize Mr. Waxman for 5 minutes.

Mr. WAXMAN. Thank you very much.

Ms. McCarthy, we have heard a lot today about the greenhouse gas regulations that went into effect in January and we have heard from witnesses today that these regulations will be "nearly impossible to meet." Yet this committee has also received testimony from industry that EPA's approach has been "reasonable and does not impose undo hardship." I would like to ask you some questions to help me understand exactly what is required under these new regulations for stationary sources. First, can you confirm that only new sources or existing sources that expand and significantly increase emissions are currently subject to any requirements?

Ms. MCCARTHY. That is correct.

Mr. WAXMAN. Thank you. So for example, if I own a power plant that is already up and running and I don't make any changes I don't have to do anything differently, do I?

Ms. MCCARTHY. No.

Ms. WAXMAN. But new facilities will have to go through a technology review process to determine best available control technology or BACT to limit carbon pollution at the facility. In most of the country this review is carried out by State or local permitting agencies not by EPA itself. Are you aware that the National Association of Clean Air Agencies has surveyed its members and most States reported that they only expect to do zero, one or two permits this year?

Ms. MCCARTHY. Yes.

Mr. WAXMAN. Members of the National Association of Clean Air Agencies recently briefed House staff on some of the permit reviews they have already begun. In the examples they share they concluded that energy efficiency would likely be all that was needed. I would like to use an example that New York State shared in order to ask if this is consistent with EPA's guidance. In New York, a Lafarge cement plant volunteered to go through the process. The

State began by identifying all available technologies that might limit carbon pollution. This initial list included carbon capture and sequestration but did not include switching to a different type of fuel. Is this consistent with EPA's guidance?

Ms. MCCARTHY. Entirely, yes.

Mr. WAXMAN. The State then quickly eliminated CCS as technically infeasible. The State indicated that because no geologic formation existed close to the cement plant, CCS would not be feasible. Is this consistent with the guidance?

Ms. MCCARTHY. Yes.

Mr. WAXMAN. The State then ranked the various options for limiting emissions and eliminated options that were too expensive. Finally, the State selected the technologies that it thought would be required. The State determined that the cement plant could reduce its carbon pollution by 12 percent by installing several types of energy efficiency equipment including high-efficiency motors, fans and burners. These efficiency features would constitute BACT. Is this the type of determination appropriate under EPA's guidance?

Ms. MCCARTHY. Yes.

Mr. WAXMAN. It sounds to me like this was a logical, reasonable process and I understand that Lefarge Cement expects that these efficiency improvements will reduce their operating costs and save them money. Is it fair to assume that many other facilities may actually save money too?

Ms. MCCARTHY. Yes.

Mr. WAXMAN. I hope the other States will follow this commonsense example and find ways to reduce pollution and improve efficiency. I have some time remaining if any of my colleagues wish me to yield to them, otherwise I will yield back my time. Mr. Green.

Mr. GREEN. I thank my friend.

Ms. McCarthy, yesterday my good friend in the Senate who served on this committee, Sherrod Brown from Ohio called on President Obama to direct EPA to implement a plan to provide financial and technical transition assistance protecting U.S. manufacturing as we move forward with the greenhouse gas regulations. Last Congress when this chamber considered cap and trade I was equally concerned about the issue and working hard. Can you comment on what the Administration is doing to address these concerns moving forward with these regulations?

Ms. MCCARTHY. Yes, I would be happy to. We have taken great pains as we begin to regulate greenhouse gases to work with the States and work with the permitting entities. We have provided a wealth of technical assistance. We have produced guidance documents that help walk them through this process. We have put white papers out that explain the cost effective technologies available in all of the major industry sectors that could be potentially regulated. We are also having listening sessions before we move forward with additional regulation to make sure that we understand the needs of the company and that we can effectively reduce greenhouse gases in ways that are cost effective. Every rule that we have available to us under the Clean Air Act that is suitable for greenhouse gas regulations requires us to look at cost so we will go out of our way to make sure that we use not just a common-

sense approach but one that reduces cost to the fullest extent we can and still achieve the required reductions under the Clean Air Act.

Mr. GREEN. I know that time has expired and I have a question I would like to submit about how good natural gas is to replace the problem we have with carbon, Mr. Chairman.

Mr. BARTON. Well, certainly without objection I will support that.

Mr. GREEN. OK, thank you, thank you.

Mr. BARTON. The gentleman's time has expired.

The gentleman from Texas, Dr. Burgess is recognized for 5 minutes.

Mr. BURGESS. Thank you, Mr. Chairman.

Ms. McCarthy, thank you for being here. In Phoenix in fact just about a month ago at the Fourteenth Annual Energy Utility and Environmental Conference in Phoenix, it says that you were involved or advocating a not just a tweaking of current energy use but a fundamental overhaul of the Nation's production use of energy. EPA is ready, willing and able to drive this overhaul, you emphasized in a quote here, "We must transform the power sector in a way that meets the needs of the 21st century." You repeatedly use the word transform to describe EPA's goal for the Nation's energy use so I guess a question that would come up where in the statute does the EPA get the authority to transform the power sector?

Ms. MCCARTHY. That was, if I may, just to give you the background for the conference. That was a conference of technology developers. What we were referring to was the range of Clean Air Act actions that are impacting the utility sector and we were talking about the fleet that is out there in the utility sector and the extreme inefficiency of many of the units that out there. In the Clean Air Act implications of having those facilities install current technology, technology that is available currently and has been available for 30 years that can actually clean them up and move towards a cleaner fleet.

Mr. BURGESS. But fundamentally it is the job of the legislative branch to come to those conclusions in conjunction with the development of a national energy policy so transformation of the power sector of America really should be a legislative initiative, not an Administrative initiative or an Executive Branch initiative.

Ms. MCCARTHY. I am not sure if that was a direct quote but what I was there to talk about was our opportunity, our opportunity to achieve significant public health protection for American families by looking at how we could provide certainty in the regulated community so investments would flow to utilities. Those that are inefficient would be able to upgrade. Those that are inefficient would know what their regulatory obligation was.

Mr. BURGESS. Let me just ask a question before the time expires. In a transformed power sector, how much coal would we be able to use in a transformed power sector? Do you have a figure in mind for that? Is it along the same lines that Gene Green just asked the question about natural gas? How much coal? How much natural gas? How much nuclear?

Ms. MCCARTHY. No, we EPA is rightly not in the business of choosing fuels. We are in the business of regulating pollutants and

what we have done with the greenhouse gas rules is we have made sure that if you are building a coal facility, you should be as clean as a coal facility can get. We have not suggested that a different fuel needs to be used. Again, we are trying to provide certainty for businesses as they need to be permitted that are coming in new and making major modifications.

Mr. BURGESS. Well, speaking in terms of certainty, you were here a year ago or just right after the deep water horizon started causing problems and the subject that day was a briefing. It wasn't a hearing so there is no record of it unfortunately but the subject was on the Environmental Protection Agency going to a new standard of 15 percent ethanol in motor fuels and gasoline.

Ms. MCCARTHY. Yes.

Mr. BURGESS. And I don't know if you recall or not but I asked you and the Department of Energy who was there with you that day about where were the studies that we could look at that shows that this indeed was a reasonable thing to do and that in fact people who had snow blowers and two-cycle engines would not have damage to their equipment by a 15 percent ethanol mixture. Do you recall that briefing that we had?

Ms. MCCARTHY. I do.

Mr. BURGESS. And you know, I never got any information from either EPA or the Department of Energy about the testing that was done or supposedly done. In fact, it almost seemed to be finger pointing one agency pointing at the other saying well the other guy is responsible for this but as we come up with this mandate that was described in Congress in December, 2007, the amount of ethanol that has to be offloaded into the Nation's fuel supply is I believe what was driving the, no pun intended, what was driving the concerns to bump the amount up to 15 percent. Is that correct?

Ms. MCCARTHY. Not on the part of EPA. EPA was responding to waiver requests.

Mr. BURGESS. But where are we?

Mr. BARTON. The gentleman's time just expired.

Mr. BURGESS. Do we have those studies available?

Ms. MCCARTHY. We do and I apologize if we weren't as responsive as we should be. We will send you the waiver decisions that were made and incorporate all of the scientific information in them.

Mr. BURGESS. Thank you, Mr. Chairman.

Mr. BARTON. OK, the gentleman from Massachusetts, Mr. Markey for 5 minutes.

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

Gasoline prices went up almost 20 cents in the last week, the biggest weekly jump in prices since Hurricane Katrina. In 1975, we imported six million barrels of oil per day. Today that number is nearly 12 million barrels per day. Prices have risen by a factor of 13 since 1975. Foreign oil purchases account for roughly one-half of the United States' trade deficit, just to input that oil largely from OPEC. Oil money supports Iran's nuclear program, roadside bombs in Iraq, rockets for Hezbollah and Hamas, and hate filled Wahhabi teachings in Saudi Arabia. Now, the Republicans are busy raising the specter of the Clean Air Act's devastating economic impacts despite reports showing that the Clean Air Act has historically led to increases in jobs and will provide $2 trillion in

benefits in 2020. But what the Republicans are planning in order to address this fabricated threat is likely to create a real danger for the United States. This committee may soon take up a bill that would tie EPA's hands and prevent it from taking any steps to reduce dangerous global warming pollution under the Clean Air Act. What the legislation would also do is prevent EPA from taking any steps to reduce our dangerous dependence on foreign oil.

Ms. McCarthy, the legislation this committee may soon act on could open up the existing car and light truck oil saving standards to legal challenge and will prevent further standards from being set. It will prevent further implementation of the renewable fuels standard and it will prevent EPA from doing anything to reduce oil use from planes, trains, boats and other industrial sources. In fact, this bill could result in an increase in our oil dependence of more than five million barrels of oil a day by the year 2030, more than we currently import from OPEC. Do you agree that this legislation could dangerously increase our dependence on foreign oil by preventing EPA from being able to take any steps to reduce demands?

Ms. MCCARTHY. I would agree.

Mr. MARKEY. Two weeks ago, the House passed a continuing resolution for spending for the rest of 2011 and that legislation was containing a rider that would block the EPA from using any funds to move forward in any way on curbing global warming pollution. For the landmark car and light truck efficiency standards to be fully implemented, EPA still has to sign off on California's plan to allow companies that are complying with the national standard to be deemed compliant with California standards. If EPA is not allowed to sign off on California's compliance plan could that put the entire fuel economy agreement that is supported by all stakeholders in jeopardy?

Ms. MCCARTHY. It could.

Mr. MARKEY. The President recently issued an executive order that requires federal agencies to propose regulations only after seeking the views of those who might be impacted by them. Can you give me an example of how EPA is complying with this directive in its efforts to regulate global warming pollution?

Ms. MCCARTHY. Very quickly, we have the Administrator has charged us and we have gone out and done listening sessions even before we begin the regulatory process to look at new source performance standards for greenhouse gases.

Mr. MARKEY. The President's executive order also requires agencies to take the special needs of small businesses into account while developing regulations. Can you give me an example of how EPA has complied with this directive as it contemplates regulations to reduce global warming pollution?

Ms. MCCARTHY. The greenhouse gas tailoring rule eliminated the need to permit six million small facilities.

Mr. MARKEY. The threat to our economy is the threat that is coming from a dramatic spike in oil. That usually signals the return of a recession. That is where we lose the jobs. If we tie the hands of EPA from taking the kind of bold action which they should take in order to reduce our dependence on imported oil, in the long run we are going to repeat this cycle of job destruction that has been our relationship with imported oil going all the way

back to 1973. How many times do we have to re-learn this lesson? 1973, 1979–80, 1991–92, on and on right up to the $4 a gallon gasoline in 2008 that foreshadowed this economic catastrophe. It is imperative that we defeat this Republican effort to tie the hands of the EPA from ensuring that the renewable fuel standard that the fuel economy standards are in place that increase using technology our ability to tell OPEC we don't need their oil anymore than we need their sand.

Thank you, Mr. Chairman.

Mr. BARTON. We thank the gentleman.

It shows Mr. Olson is next, is that your understanding? OK, we are going to go with Mr. Olson and then Mr. Bilbray and then Mr. McKinley. What is your timeframe, Madam Administrator? Are you OK for another 15 minutes or so?

Ms. MCCARTHY. I am here for you, Mr. Chairman.

Mr. BARTON. OK, thank you, ma'am.

Mr. OLSON. I thank the chair.

Ms. McCarthy, as you know jobs are the biggest concerns of the American people right now, that 10 percent unemployment for about 2 years, and EPA Administration Jackson touts the job creation of the new green control technologies. When I asked one of our previous witnesses if she was right or wrong about creating these great jobs, he said wrong. Are you aware of any analysis done by EPA to determine the economic impact specifically with regard to jobs of the EPA's greenhouse gas regulations?

Ms. MCCARTHY. No.

Mr. OLSON. Don't you think EPA should look at jobs in proposing some greenhouse gas regulations?

Ms. MCCARTHY. Let me just expand on that. The greenhouse gas tools that we are using, the tools we are using to regulate greenhouse gases are the same tools that we have used in the Clean Air Program for 40 years and what we have found is that those tools actually provide cost-effective, public health measures that actually grow the economy and in many ways provide one of the most significant public health benefits that are available to us. So for every dollar we spend on clean air, we get $40 in public health benefits and so we believe that our job is to deliver public health to the people in this country but we are not insensitive to the cost impacts and the job impacts. And what I would say is the other point I would really like to make is that the Clean Air Act because of the public health benefits it creates in terms of making sure that people can get to work means that people can be productive and keep their jobs. What it means in terms of kids staying healthy, staying in school is incredibly important if you are a single parent or if you are parents where both need to work. We are providing opportunities for clean air. We are providing opportunities to keep people healthy, that certainly keeps people productive.

Mr. OLSON. Yes, ma'am. I ask you to submit further answer for the record please, ma'am.

Ms. MCCARTHY. Yes.

Mr. OLSON. I have little time here. Would you be opposed to an inclusion of a detailed job statement and an impact statement any time EPA proposes new regulations? Would you be opposed to that?

Ms. MCCARTHY. We already do a detailed regulatory impact assessment with the Office of Management and Budget for our rules.

Mr. OLSON. Something that we could include the private sector in to get their opinion as well?

Ms. MCCARTHY. We actually do peer review of all our methodologies. That includes going to the private sector using economists and scientists so everything we do is peer reviewed in terms of the methodology, the data is transparent and we believe we do a very good job.

Mr. OLSON. Well, thank you then I will put you down as a big yes for having a more determinative jobs' impact statement from EPA when they propose to change regulations. And coming down the home stretch here, I want to talk about a problem my home State is having with the EPA regarding the permitting process that has been done by the Texas Council on Environmental Quality for the last 15 years. Basically, EPA is taking over the regulation of the power generation and refineries in our State and again, it has been going on for the last 15 years. Our State had a SIP approved 15 years ago, three Administrations, two Democrat, one Republican that Texas operated under and again approved by the EPA. Essentially it achieves its clean air goals by giving Texas the flexibility to establish caps for all emitting facilities at a plant instead of each individual piece of equipment. EPA is hurting Texas economy and jobs right now by taking over this permitting process. Just as example what has happened since EPA has done that in late-December, a major refinery has spent $4 million to "deflex." The problem I have with all of this is the flexible permitting process has worked. Since 1999, flexible permitting has achieved a 22 percent decrease in ozone, a 53 percent decrease it nitrous oxide compared to the national average of 15 percent for ozone and 27 percent for nitrous oxide. So Texas 22 percent in ozone, the Nation 15 percent, Texas 53 percent in ozone and the Nation 29 percent. We are doing all of this while adding 3.5 million people and creating half the private sector jobs in America since our country went into recession in 2009.

Mr. BARTON. The gentleman's time expires and he needs to——

Mr. OLSON. I will wrap up real quickly. The point of the Clean Air Act is clean air. Texas has done better than most. Why is EPA taking this over?

Ms. MCCARTHY. I would just have to object to the phrase that we are taking anything over, Mr. Olson. I believe we are doing the best job that we can to work with TCEQ to make sure that the permits they issue are federally enforceable, that provide a sound platform for your businesses to operate with confidence. We do not believe that the flexible air permits are enforceable under federal law. We believe they put those businesses at risk. We believe they are not transparent enough for the communities that live around those facilities to know that they are on a level playing field with the way that every other State issues its permit and does business.

Mr. BARTON. And why did it take 18 years to come to that conclusion?

Ms. MCCARTHY. I believe that it was under the Bush Administration that first raised the issue that these flexible air permits need to be fixed.

Mr. BARTON. Then you don't dispute that for 18 years EPA you said it was—well they didn't positively say it was OK. They didn't choose to say it was not OK and they only decided that it was not OK this last year?

Ms. MCCARTHY. Well, we have made a concerted effort to try to work with the State and work with the industries to switch what we believe is not an appropriate and federally enforceable.

Mr. BARTON. Is there any other State that has had the success in actually reducing the criteria pollutants like Texas has?

Ms. MCCARTHY. We have had many areas that have had great success and I am not disputing that Texas hasn't had reductions in air pollution. What I will say is they don't use a process that even EPA can figure out what is going on in those facilities and ensure that they are complying with federal.

Mr. BARTON. And that is a subject for another hearing. The gentleman's time has expired.

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

Mr. BILBRAY. Ms. McCarthy, the CAFE standard.

Ms. MCCARTHY. Yes.

Mr. BILBRAY. Is the CAFE standard set with 100 percent fossil fuel gasoline, 10 percent or 15 percent ethanol? What is the fuel mixture that is used to set the CAFE standard?

Ms. MCCARTHY. The CAFE standard isn't based on the fuel mixture, it is based on fuel efficiency. It is based on the efficiency of the vehicle.

Mr. BILBRAY. So I was the guy who had the emissions put on the sticker next to the mileage but when the consumer gets the mileage reading.

Ms. MCCARTHY. Right, it is based on zero. It is based fuel without any ethanol if that is your question.

Mr. BILBRAY. OK.

Ms. MCCARTHY. That is our certification code.

Mr. BILBRAY. So if you are using 100 percent fossil fuel as your standard for CAFE.

Ms. MCCARTHY. That is correct.

Mr. BILBRAY. And is there a reason why you don't use ethanol in the mixture?

Ms. MCCARTHY. It just hasn't been updated of late to recognize the fact that there is ethanol in most of the fuel.

Mr. BILBRAY. And ethanol has an impact on fuel mileage, right?

Ms. MCCARTHY. It does.

Mr. BILBRAY. What is your number, 66 percent, 70 percent of diesel, I mean of gasoline?

Ms. MCCARTHY. I don't have that on the top of my head. It depends on certainly the amount of ethanol in the mix.

Mr. BILBRAY. Well no, I am talking about ethanol as compared to gasoline.

Ms. MCCARTHY. Yes.

Mr. BILBRAY. The carbon chain is 66 percent, 70 percent?

Ms. MCCARTHY. I don't know the answer.

Mr. BILBRAY. OK, I think that is a critical component I would like to talk to you about because as somebody who has worked at the local level on it when we talk about if you we are going to address that issue, first of all the consumer is not allowed in the

United States to use 100 percent gasoline in the fuel system because the retailer is not allowed to sell it to the consumer without 10 percent.

Ms. McCARTHY. No, that is incorrect.

Mr. BILBRAY. OK, I can go buy real straight gasoline?

Ms. McCARTHY. It depends on where you live and what time of the year.

Mr. BILBRAY. OK, that is astonishing I will just tell you because that we get into it. California fought for years to try to oppose this and you remember that battle. A lot of your State agencies supported us on this. Let me get back to and oh by the way, in California we are paying $6 a comparable gallon for ethanol. Now, when we talk about something that has only the energy of 70 percent, let us give them 70 percent of gasoline, wouldn't you agree that our content mandate should reflect real useable energy and not just volume? Are you following what I am saying? In other words, there are certain green fuels that can produce 100 percent equity with gasoline. You have right now on the market a green fuel that only provides 66 to 70 percent of the energy of traditional fossil fuel. Don't you think that it would be much more real world standard if we allowed the BTUs to be the content requirement rather than by volume?

Ms. McCARTHY. Actually, I would have to say that what we regulate are air emissions. We don't force particular mixtures of fuels. We force those fuels to meet certain.

Mr. BILBRAY. Ma'am, no wait a second. I have got to call you down on that because we have got study on study that the CARB fuel was cheaper and cleaner than the oxidated fuel with ethanol. We have standards after standard in California. EPA, before you showed up, held us off for years. We had a cleaner, cheaper fuel. We are mandated in California to put ethanol into our fuel. All I am asking you is this, seeing that that mandate requires that only 70 percent of the or comparable seven percent, not 10 percent but 7 percent of the energy in that tank is renewable, don't you think that it would be more reasonable to reflect that that we allow the standard to be either 10 percent by volume or seven percent by energy because it is the energy? Wouldn't you agree that energy is what matters, not the volume?

Ms. McCARTHY. I understand exactly what you are saying and all I would suggest is that I am unprepared for this conversation. I am here to talk about greenhouse gases. If you would like to carry on this conversation I am certainly happy to do that and we will bring our technical expert.

Mr. BILBRAY. My point is the fact that the standard that is touted so much by my colleague from Massachusetts has major problems that need to be corrected and ought to be corrected through legislation if the EPA can't address it. That fact that the consumer is actually losing out 30 percent of the energy for, you know, for ethanol that you do not get gasoline and this is what my point is on this from the emissions point of view, emission standards are set per gallon, not per BTU.

Ms. McCARTHY. I understand.

Mr. BILBRAY. So now you have got this stuff hiding as equal to gasoline when it doesn't give you the energy of gasoline but has as

they are trying to compare apples and oranges and this is a major problem we need to address.

Mr. BARTON. The gentleman's time is just about to expire. We appreciate the gentleman's questions on ethanol and fuel standards. The gentle lady is right, this is a greenhouse gas hearing on CO_2 but those were very good questions.

Mr. BILBRAY. Well, Mr. Chairman, let me just say that the issue here though is that mandating the fuel as part of it, the emissions issue is hidden.

Mr. BARTON. That is true.

Mr. BILBRAY. Because when you talk the fact that the efficiency of the fuel is so deficient, you are now hiding this huge pollutant that is being brought into it in volume rather than talking about the true emissions per mile driven.

Mr. BARTON. OK, the gentleman's time has expired. We don't want to let you pull an Ed Markey on us here.

Mr. BILBRAY. OK.

Mr. BARTON. So we also appreciate the gentle lady's refreshing candor in answering the questions. This thing with the gentleman from West Virginia is going to be the last questions unless Mr. Rush has some questions.

Mr. MCKINLEY. Thank you, Mr. Chairman.

I read through your remarks your opening statement several times and highlighted some features too. I think what I am gathering from your remarks is that the regulation of the greenhouse gases through the Clean Air Act is going to create jobs. It is going to offset the jobs that it is going to cost and I have gone through it and it talks about how by the year 2020, we are going to have $2 trillion in benefits. A $30 benefit for every dollar spent, that the economy is billions of dollars larger today because of the Clean Air Act. In the past 7 years, 200,000 jobs have been created in the air pollution industry, air pollution control industry. I can go on. It was very interesting but I come from West Virginia and with all due respect I don't want to see us take risk that you are posing with that analysis and they appear as fantasy. What I believe and what I deal with, I am engineer and what I deal with is in reality and the reality is the jobs you describe, they are not going to be in West Virginia. When you crush our economy with over 50 percent of the revenue for their operators comes from coal we heard testimony earlier from some of your other compatriots that when you take away that we are either going to have in West Virginia the State government is either going to have to cut services or raise taxes and that is going to discourage a lot of investment in West Virginia. There is a steel company in Weirton and one in Wheeling that combined used to have over 30,000 employees that because of your over-regulations and what has happened overseas, they are down to only 2,000 employees. They are just a shadow of what they were and when you talk to them it is all because of government and the regulations and the lack of control of what is going in from overseas. So when I go back on the weekends, I meet with the steel workers. I meet with the coal miners. They are scared to death of what Washington is doing and what the EPA is doing. They don't know how they are going to have a job tomorrow. They don't know how they are going to have a roof over their heads for their chil-

dren and what their future is. They are scared to death of what the EPA, their more over-regulation with it. A good remark they said why can't, you know, our families have the same enjoyment that the EPA families are having with what they are doing to us? So these realities that I have referred to, they are coming from the people in my district. They are scared. They are worried about the government and the over-regulation. When I went through your report, it is all based so much of it based on your own funded studies rather than independent scientific. It is your reports that you are quoting and then you refer to the B-rated Environmental Journal that is used. Not even one of the top ones in the country that worldwide, globally is respected. You are using a B-rated journal to use as to shore-up your argument of why you should do these kinds of things. I am just asking, madam, with a straight face how can you honestly say that the enforcement of the greenhouse gases are going to create jobs and the people in West Virginia are going to be OK?

Ms. MCCARTHY. Well, you have hit many, many different issues.

Mr. MCKINLEY. You should speak up a little louder please.

Ms. MCCARTHY. I am sorry. You have addressed a number of issues and let me try to get at these. I have been in the environmental business so to speak as a regulator for 30 years. I came from a working-class family as well. I do not believe that in this day and age we need to make a choice between clean jobs, good jobs and breathing clean air. I think we have proven in 40 years.

Mr. MCKINLEY. Just show me how you are going to create the jobs. Tell me what is going happen?

Ms. MCCARTHY. In 40 years of history of the Clean Air Act——

Mr. MCKINLEY. I don't want the fantasy. I want to know specifically are we going to replace those jobs because those jobs are being lost.

Ms. MCCARTHY. I do not believe that the approach we are taking on greenhouse gases because it is done in a commonsense, phased, measured way that is doing anything other than trying to identify the most cost-effective ways for new businesses to get permits and to do their business.

Mr. MCKINLEY. Did you not hear the testimony from the people that were just here the 2 or 3 hours prior to you?

Ms. MCCARTHY. I did.

Mr. BARTON. The gentleman's time has expired but we will let the administrator answer the question.

Ms. MCCARTHY. Let me just make a couple of points and one is that the permit requirements only are dealing with the largest sources of greenhouse gas emissions. They are only looking at the best technology to make them efficient when new ones are coming on line or when they are making major modifications. That is what we are doing and the data that I have in my testimony is all based on peer-reviewed science. It is not just EPA studies. It is all transparent. What I listen to are many people with ideas and concerns. I appreciate those but there were some documents that you are listening to that I don't think are transparent, that I don't think have been peer-reviewed and I think the one thing that I am trying to do is to present you with information so that you can make the appropriate decisions and I do believe that there is a wealth of sci-

entific data that says we need to take action to reduce greenhouse gases that is one of our most significant public health challenges and that the Clean Air Act for 40 years has been a premier opportunity to actually reduce pollution like carbon pollution in ways that is cost-effective.

Mr. BARTON. Does Mr. Rush wish to ask any wrap-up questions?

Mr. RUSH. No, Mr. Chairman, I don't have any additional questions.

Mr. BARTON. OK, let me—just for clarification before we adjourn as I understand the Obama Administration approach on greenhouse gases that you elaborated on, you are not going to set a standard based on fuel. You are not trying to set an emission level based on coal or an emission level based on natural gas or an emission level based on an alternative.

Ms. MCCARTHY. No, our greenhouse gas permitting process starts with the proposal on the table. If it starts with a coal facility, those are the technologies.

Mr. BARTON. So if I have in Ohio a coal-fired power plant that is 50 years old and I want to maintain that plant as is, I am not going to have to do anything under your regulatory approach?

Ms. MCCARTHY. On the greenhouse gases if you are not you don't need a permit unless conducting a major modification.

Mr. BARTON. But if I freeze my technology and let us say I am going to use the same fuel source and I am going to use the same plant equipment at the same location and I have a 400-megawatt coal-fired power plant, I don't have to do anything under the regulatory approach that you all are proposing?

Ms. MCCARTHY. You would not need to get a greenhouse gas permit. We would not be looking at your facility in terms of that.

Mr. BARTON. You are only going to look at facilities that are under renovation or under permitting as new source, new stationary sources?

Ms. MCCARTHY. That is correct and only when you are a very large facility and you are making a large increase in greenhouse gases as a result, and even then all you are looking at are building efficiencies into the system.

Mr. BARTON. Seeing no further members present wishing to ask questions, we thank the gentlelady for her time and this subcommittee is adjourned.

[Whereupon, at 6:06 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Statement of Representative John D. Dingell
House Committee on Energy and commerce
Subcommittee on Energy and Power
EPA's Greenhouse Gas Regulations and their Effect on American Jobs
March 1, 2011
2322 RHOB

Mr. Chairman – thank you for holding this hearing today. With our economy just starting to make a turnaround, we should all be concerned about jobs – how we save jobs we currently have and how we create more. I applaud the majority for looking into this matter and look forward to, after more than 2 months since my Republican colleagues took over the majority, considering legislation on the House floor that would create jobs. Thus far, much to my dismay, that has not been on the agenda.

I have long held the Supreme Court got it wrong in *Massachusetts vs. EPA*. Moreover, I have made clear that Congress never intended for the Clean Air Act to cover greenhouse gases. In addition to not believing the Clean Air Act was intended to cover greenhouse gas emissions, I firmly believe, as does nearly everybody from EPA Administrator Lisa Jackson to industry to the most entrenched environmentalist, the Clean Air Act is not the most effective approach to regulating greenhouse gas emissions.

This is why I strongly support a legislative approach to dealing with greenhouse gas emissions. The House passed comprehensive climate change legislation in the last Congress that I believe, as did most of industry, would have effectively regulated greenhouse gas emissions while also protecting American jobs. Unfortunately, the Senate did not take up that legislation. I believe the draft Upton-Inhofe bill faces the same fate, should it even pass the House.

Mr. Chairman, we face several legitimate problems here:

1. Climate change is a very real problem that requires our attention.
2. In order to make investments, industry needs certainty.
3. As the primary author of the Clean Air Act, I firmly believe it was not designed to cover greenhouse gas emissions.
4. We have a weak economy and need to be certain actions taken by Congress provide stability and move toward job creation.

The question we have to ask ourselves is how to rectify these problems and come out with a policy that works towards answering these problems. It is my belief that the Upton-Inhofe bill, as currently drafted, is not the answer. While it does address the issue of whether or not the Clean Air Act should cover greenhouse gas emissions, it does not address the issue of climate change, and I do not believe it adequately gives industry the certainty they need to move forward and make investments. And as I have mentioned before, I feel the question of job leakage could be addressed in a comprehensive climate change bill.

I applaud my friend and colleague from Michigan for his efforts. I have the utmost respect for Mr. Upton and truly believe he is trying to do the right thing on this matter. I look forward to

working with all my colleagues on both sides of the aisle to try to come up with a legislative answer to all four of the very real problems I outlined earlier in my statement.

Congressman Cory Gardner Opening Statement

EPA's Greenhouse Gas Regulations and Their Effect on American Jobs

3/1/2011

Just a few weeks ago, this Committee had an opportunity to ask questions of EPA Administrator Lisa Jackson. I was struck by a comment she made that directly relates to this hearing and what effect greenhouse gas regulations will have on jobs. She said, and I quote, "There are tremendous opportunities in rural America for the economy to continue to grow as it has thrived over the past several years." I quickly interjected and asked her to clarify that she really meant the economy has thrived over the past several years. Her response – and again I quote – was "Rural America's economy has done fairly well as the rest of the country has seen the housing market and economy really do poorly."

Mr. Chairman, U.S. Census data just showed me a few days ago that five counties in my district have each lost 10 percent or more of their populations. In all, seventeen out of the 64 counties in Colorado had a population decline – most of them rural. I imagine the administration would be hard pressed to show that these rural communities that lost residents are thriving and have "done fairly well." Because along with population loss comes job loss and loss of business.

In fact, I am quite disturbed by the nature of the assertion made by Administrator Jackson – an assertion that indicates EPA has no pulse on what is going on in rural America.

However, I now understand why EPA might be promulgating these onerous regulations: they believe that rural America is thriving and can therefore absorb their effects. I have some shocking news for this Administration. Businesses and farms in rural America must abide by regulations that are not moving them in the direction of progress. They are anticipating having to absorb higher costs, which, among many other things, lead to job losses, less innovation, and fewer opportunities to grow.

The EPA has done no thorough analysis of how industries and businesses will be affected by implementing greenhouse gas regulations. Despite this, however, they are charging ahead. And they're doing so despite failed attempts by Congress to pass a similar cap and tax bill. This is a runaround Congress and it is circumventing the people's will – which we are here to represent.

Mr. Chairman, this is just the beginning of what EPA will do if we continue to let them. We must change course now or businesses will find another market, and likely one that will have little or no regulation on greenhouse gases. This will cost us jobs and lead us down a path that does not end in energy independence.

Thank you, Mr. Chairman. I yield back my time.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED TWELFTH CONGRESS

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March 1, 2011

The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Whitfield:

Pursuant to clause 2(j)(1) of rule XI of the Rules of the House of Representatives, we are writing to request that at least one additional day of hearings be conducted on the subject of today's hearing on EPA's greenhouse gas regulations. We further request that this hearing be scheduled before the Subcommittee marks up legislation on this subject.

In particular, we believe it is essential that the Subcommittee hear from our nation's leading scientific experts. At the Subcommittee's first hearing, Senator James Inhofe told the Subcommittee that he believes climate change is a "hoax." We believe the members should have the opportunity to hear from top scientists on this subject and the implications of inaction before we are asked to vote on legislation premised on the assertion that carbon pollution is harmless.

Last week, Ranking Members Henry Waxman and Bobby Rush asked that Professor Don Boesch, President of the University of Maryland Center for Environmental Science, be invited as a witness at today's hearing. He is one of the authors of the report "Global Climate Change Impacts in the United States," which was released by the U.S. Global Change Research Program. He is also a member a select group of scientific experts assembled by the National Academies of Science to assess practical approaches to responding to climate change. He would have told the Committee about the grave risks facing our economy if we do not reduce carbon pollution. Despite the relevance of his testimony and the absence of any witnesses with expertise on the economic costs of climate change, this request was denied.

Ranking Members Waxman and Rush also wrote you and full Committee Chairman Fred Upton last week to ask for a hearing about new scientific research linking carbon pollution to an increase in extreme weather events like floods and droughts. If this research is accurate, the economic costs are potentially enormous. Yet to date, there has been no response to this request.

The Honorable Ed Whitfield
March 1, 2011
Page 2

These are the types of witnesses that the Subcommittee needs to hear from if we are to understand the implications of legislation like the draft Upton-Inhofe bill. That is why we are invoking our right under rule XI to request such a hearing.

We look forward to setting a mutually acceptable time and place for the additional hearing to garner testimony from witnesses that we have selected, and we thank you for your consideration of our request.

Sincerely,

Henry A. Waxman
Ranking Member

Bobby L. Rush
Ranking Member
Subcommittee on Energy and Power

John D. Dingell
Member of Congress

Edward J. Markey
Member of Congress

Eliot L. Engel
Member of Congress

Gene Green
Member of Congress

Lois Capps
Member of Congress

Michael F. Doyle
Member of Congress

Jay Inslee
Member of Congress

Jim Matheson
Member of Congress

cc: The Honorable Fred Upton
Chairman
Committee on Energy and Commerce

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Thomas J. Gibson
President and Chief Executive Officer

January 10, 2011

The Honorable Darrell Issa, Chairman
House Committee on Oversight and Government Reform
2157 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Issa:

On behalf of the American Iron and Steel Institute (AISI), I am pleased to respond to your inquiry regarding existing and proposed regulations that negatively impact the economy and jobs. AISI is the trade association representing U.S. and North American steelmaking companies. We are comprised of 24 member companies, including integrated and electric arc furnace steelmakers, and 140 associate and affiliate members who are suppliers to or customers of the steel industry. AISI's member companies represent approximately 80 percent of both U.S. and North American steel capacity.

Steel and other manufacturing industries are the backbone of our economy. A strong manufacturing sector creates significant benefits for society, including good-paying jobs, investment in research and development, critical materials for our national defense, and high-value exports. Both the Environmental Protection Agency (EPA) and the Occupational Health and Safety Administration (OSHA) have in place, and have proposed, multiple new regulations that will create competitive disadvantages to U.S. industry and endanger manufacturing jobs. AISI appreciates this opportunity to comment on some of the most problematic regulations to the steel industry.

EPA

AISI has long identified environmental stewardship and commitment to sustainability as part of our industry's strategic plan and our vision for the future. As a result of this commitment, we are aggressively seeking ways to reduce our environmental footprint even while producing the advanced and highly recyclable steel that our economy demands. The industry has reduced its energy intensity by 30% since 1990, while reducing its greenhouse gas (GHG) emissions by 35% over the same time period. In fact, the American steel sector is recognized as having the steepest decline of total air emissions among nine manufacturing sectors studied in EPA's 2008 Sector Performance Report.

Over the past two years, the EPA has undertaken an extensive regulatory agenda, proposing a substantial number of new regulatory initiatives in a number of program

areas, including air, water, toxic chemicals, and solid waste. AISI currently interacts with the EPA on more than 40 environmental rules that may have significant impacts on steel manufacturers. Many of these new regulations will create permitting obstacles for investment in new and renovated facilities and impose significant additional costs on domestic steel producers as well as other energy intensive industries. Even though the steel industry has a history of demonstrated leadership in meeting and exceeding environmental requirements, the simultaneous development of multiple new environmental regulatory proposals across several program areas at the federal and state levels have the potential to limit continued industry advancement, while endangering critical manufacturing jobs. Below are some of the more significant regulatory issues that threaten the restoration or preservation of manufacturing jobs.

Greenhouse Gas Regulations

EPA is moving forward this month with economically-damaging actions to regulate GHG emissions from most steel producing facilities. EPA's regulation of GHG emissions under the Clean Air Act will be very costly to the domestic steel industry, prevent it from making new investments that would allow the industry to grow and add jobs, and undermine efforts at promoting economic recovery. The unprecedented speed of EPA's efforts to regulate GHGs under the Clean Air Act threatens nationwide permitting gridlock and serious economic disruption exactly when our economy is struggling to regain its balance. Regulating GHG emissions under the Clean Air Act will create disincentives to invest, potential for new project construction delay, and increased litigation risk.

Climate change is a global problem that can only be addressed effectively on a global basis. EPA's proposal to regulate GHGs from stationary sources under the Clean Air Act will not address the global dimension of the climate change issue, but will place significant new burdens on steel manufacturers in the United States. This will unilaterally raise operating costs, which will place our American steel manufacturers at a competitive disadvantage, while allowing overseas competitors to continue to increase their emissions. The result would be limited environmental gain, but significant economic challenges, including further elimination of valuable American manufacturing jobs, especially for energy-intensive trade-sensitive industries.

In December, EPA released two documents intended to guide state regulators and industry in the implementation and compliance with these regulations: the Prevention of Significant Deterioration (PSD) and Title V Permitting Guidance for Greenhouse Gases (Guidance Document) and Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Iron and Steel Industry (Technical Document). Both of these documents have only heightened industry's concerns with the regulations.

These EPA documents did not reflect the true status of existing and emerging technologies for the industry. In particular, due to dramatic reductions in energy usage in recent years, iron and steel plants have limited opportunities for incremental energy

efficiency improvements until new breakthrough technologies are developed. The Technical Document states that the iron and steel industry can further reduce energy use by 27% for integrated mills and 53% for electric arc furnaces plants. These estimates are extremely unrealistic. This is primarily because several of the technologies identified in the Technical Document have already been adopted by the industry. For example, many integrated facilities already control coal moisture, utilize pulverized coal injection, and have improved blast furnace control systems. Similarly, many electric arc furnaces commonly employ foamy slag practices, oxy-fuel burners, insulation of furnaces, and walking beam furnaces. Thus most of the projected gains in efficiency have already been achieved by the steel industry. Also, as a general matter, most steel companies, whether integrated or electric arc furnace-based, employ sophisticated preventive maintenance programs and energy monitoring and management systems.

EPA's efforts to broaden PSD permitting to include GHGs and refocus Best Available Control Technology (BACT) standards on energy efficiency present not only significant challenges (as noted above), but also an opportunity. Through this process, EPA has the opportunity to address some of those challenges by streamlining the PSD permitting and BACT process. Given the agency's acknowledged interest in advancing energy efficiency projects, it should seize this opportunity to shape not only the BACT process itself, but also the PSD threshold applicability determination process to avoid ensnaring energy efficiency projects that have demonstrated environmental benefits.

Boiler MACT Proposed Rules

EPA's set of proposed rules for industrial boiler Maximum Achievable Control Technology (Boiler MACT) would not only have an adverse impact on the domestic steel industry, but would create unintended environmental harm. These EPA proposed rules are for emissions standards for: (1) area source industrial, commercial and institutional boilers (Area Source Boiler Rule); (2) major source industrial, commercial, and institutional boilers (Major Source Boiler Rule) and; (3) commercial and industrial solid waste incineration units (CISWI Rule).

Currently, iron and steel manufacturers use byproduct gases from coke ovens and blast furnaces to fuel plant boilers that produce steam, electricity, and other thermal energy. Utilization of the process gases as a fuel allows the recovery of energy otherwise wasted, and offsets consumption of fossil fuels, in particular natural gas. This entire practice increases the overall energy efficiency of steel production facilities, reduces GHG, criteria and hazardous air pollutant emissions, and is a vital tool for promoting our nation's energy independence and global competitiveness.

Unfortunately, the benefits of steel industry process gas recovery would be lost as a result of the manner in which EPA's proposed Boiler MACT rules would treat byproduct gases at steel plants. If steel industry boilers are subject to the proposed "Gas 2" standards, the industry will be incentivized to flare off the process gases to meet environmental and safety requirements and use more natural gas to run the boilers that are needed. EPA

estimates that it will cost companies $600 million to place controls on the approximately 75 coke oven gas fired boilers that would be subject to the proposed rules. In the alternative, companies could flare the coke gas and use natural gas as a substitute which would cost $300 million. Flaring process gases and using more natural gas will result in increased steel industry GHG and hazardous air pollutant emissions, as well as more energy consumption. These undesirable energy and environmental results run counter to the desired effect of the Boiler MACT proposed rules. AISI presented this issue to EPA and provided some workable alternatives, and we are awaiting EPA's response.

It should be noted that, in response to comments and concerns raised by both industry and Members of Congress, EPA recently requested an extension of the court-ordered deadline for implementing these new Boiler MACT rules – from January 16, 2011 to April 13, 2012 – in order to allow the agency to reconsider the proposed rules in light of the comments received. AISI, along with other industry associations, has filed a response with the court in support of EPA's request for delay in the deadline. We agree with EPA that the substantial additional time is necessary to adequately review the thousands of substantive comments that have been filed on the proposed rules and to revise the proposals accordingly. The deadline extension will provide EPA sufficient time to conclude the process with rational and defensible rules.

National Ambient Air Quality Standards (NAAQS)

The Clean Air Act requires EPA to set and periodically review NAAQS for six especially widespread pollutants, including ozone and sulfur oxides. The EPA is in various stages of reviewing all six standards, which impacts the ability of manufacturers to plan future operations and investments. In issuing a new sulfur dioxide standard, EPA outlined a new approach for designating nonattainment areas that will rely on modeling, which is a significant shift in policy and is inconsistent with the Clean Air Act. The sulfur dioxide standard is now being challenged by industry and several states in federal court and is subject to petitions to stay and reconsider the standard. With respect to the ozone standard, EPA is slated to issue a final standard in 2011. The Manufacturers Alliance recently released a study showing that setting a new 8-hour ozone ambient air standard at the bottom of the range proposed by EPA (60 ppb) would cost over $1 trillion per year between 2020 and 2030 and decrease the GDP by more than 5% and lead to 7.3 million job losses by 2020.

Economic impact due to the NAAQS for sulfur dioxide and nitrogen dioxide and related EPA implementation and modeling guidance will be significant. The flawed modeling tools and guidance policy will lead to more portions of the country being designated "unclassifiable" or "nonattainment." In many cases air permits for new construction or facility modernization projects will be stalled or projects cancelled because of these modeling tools and guidance policy, ultimately limiting economic growth and job creation. The modeling tool is not suited to simulate atmospheric chemical reactions, nor is it capable of accurate prediction of 1-hour concentrations. In sum, the tools simply are

not capable of doing the job accurately and will be a significant impediment to economic revival.

We believe EPA should not require states to make their sulfur dioxide §107(d) designations using emission modeling. EPA should also delay implementation of the NAAQS for sulfur dioxide and nitrogen dioxide until accurate modeling tools are developed. Other NAAQS standards should not be promulgated until there is adequate public discourse, and until scientifically valid modeling tools for each pollutant are determined to be accurate for the new short term standard and implementation guidance developed.

Water Issue Regulations

AISI tracks numerous water quality rules that are in various stages of development including an impending EPA proposal to regulate cooling water intake structures for the purpose of protecting aquatic life. The rule, previously promulgated but remanded by federal court order, would have required companies to make significant investments to redesign or replace existing intake structures. AISI is working with a multi-industry group to interact with EPA to provide information that hopefully will lead to a more reasonable rule based on application of site-specific best professional judgment as opposed to stringent uniform standards.

OSHA

AISI recognizes that it is a policy priority of the federal government to ensure safety and health at industrial workplaces, a critical goal shared by the steel industry. AISI members place the highest priority on occupational health and safety (OHS) matters because it is imperative that their valuable workers remain safe and healthy. They have made substantial efforts to decrease the number and frequency of workplace incidents and continue to work through AISI to share information and best practices to meet their shared goal of improving occupational safety and health.

The Department of Labor and OSHA leadership have proposed a multifaceted regulatory agenda that includes several items of interest to the domestic steel industry. Our experience has demonstrated that cooperative efforts among company management, employees, and government can help maximize safety and health. However, regulations that are not promulgated with real transparency and stakeholder involvement or are not based on thorough cost-benefit analysis may misdirect priorities and create unnecessary costs for employers that prevent optimum workplace safety and health benefits from being realized. Furthermore, OSHA's increased enforcement measures can be counterproductive to achieving optimal benefits. Regulations should be directed to those hazards that address shared health and safety goals of the industry, employees, and OSHA, and not create unnecessary costs that prevent these benefits from being realized.

Noise Policy Reinterpretation

OSHA has proposed to change its enforcement policy on noise limitations to require use of feasible engineering controls before permitting use of personal protective equipment. The proposed change would require every steel facility to install economically "feasible" engineering and administrative controls to reduce employee noise exposure before relying on hearing protectors, a reversal of decades of agency precedent and policy. OSHA is defining "feasible" as "capable of being done without threatening the viability of the company." Under the proposed OSHA rule, the employer would carry the burden of proof to demonstrate the economic infeasibility of controls. This is a shift in the burden of proof from previous OSHA regulations adopted pursuant to Section 6(a) of the Occupational Safety and Health Act of 1970. For capital intensive companies and industries that need capital for modernization to remain globally competitive and that are under continuous pressure to increase productivity, forcing the retrofit of engineering controls and/or decreasing productivity by requiring the use of additional person-hours through administrative controls, may threaten our global competitiveness.

Recording Musculoskeletal Disorders (MSDs)

OSHA has proposed a rule requiring employers to record musculoskeletal disorder (MSD) injuries separately from other injuries and illnesses on their OSHA 300 forms. The steel industry, as well as others in the business community, is concerned that OSHA may use the MSD data to issue general duty clause violations in the absence of a national ergonomics standard. Using this data to initiate a new rulemaking for an ergonomics standard that is substantially similar to the original would contravene the Congress' invalidation of the original ergonomics standard pursuant to the Congressional Review Act.

Combustible Dust

OSHA continues to hold stakeholder meetings in advance of proposing regulations on workplace combustible dust management. Because of the nature of some steelmaking processes, these regulations have the potential to disrupt existing operations and force AISI members to adopt costly and unnecessary engineering controls. As such, we have proposed to OSHA that it limit the scope of its anticipated combustible dust rule to materials that are likely to explode when ignited and to consider the cost and economic feasibility of relocating existing dust collection equipment outside building structures. Doing so will result in an OSHA proposal that appropriately addresses substances of concern without creating a misrouted and costly regulatory burden on the steel industry.

Injury and Illness Prevention Program

OSHA has proposed requiring that every employer adopt a uniform federal injury and illness prevention program (I2P2) to reduce injuries and illnesses. However, the agency has also suggested that adoption of the I2P2 will allow it to support alleged violations for

conditions that are currently not subject to any specific OSHA standard or rule. Based on current injury and illness data, there is no evidence that state plans with such a rule have actually improved their injury and illness rates compared to states that have not adopted such a rule. AISI members have had effective injury illness programs for decades and are concerned that a uniform federal standard would adversely affect existing programs. They are also concerned that OSHA will use the I2P2 rule to "double dip" when proposing citations and fines for hazards both covered and not covered by a specific OSHA standard.

Permissible Exposure Limit (PEL) Update Process

OSHA has invited the public to submit candidate chemicals for consideration in expedited PEL update process. It also announced that its standards and guidance staff are considering various approaches to such an update. AISI asked OSHA to hold open tripartite meetings to develop such a process in the agency's initial stakeholder meeting. But, to date, the agency has published only a listing of chemicals but not the organizations or individuals who made the specific recommendations. Updating PELs will affect every steel manufacturer as well as most of the manufacturing sector. As OSHA moves forward, the PEL update is clearly a process that must be transparent and involve the major affected stakeholders, viz., employers, employees and the government.

On-Site Consultation Program

OSHA has published a notice of proposed rulemaking for the agency's on-site consultation program that will give the agency greater flexibility to inspect worksites undergoing an on-site consultation visit or participating in the Safety and Health Achievement Recognition Program (SHARP). OSHA also seeks to initiate an enforcement inspection at a worksite when allegations of potential workplace hazards or violations are received from a state or local government, the media, and "other" sources. Current policy permits OSHA to terminate on-site consultation visits and to inspect SHARP sites only when an imminent danger exists, a fatality or catastrophe occurs, or pursuant to a worker complaint. OSHA is also proposing to shorten the initial exemption from programmed inspections for employers in the SHARP to one year from two years. This proposal is of concern to the steel industry, as it may discourage employers from participating in this successful program and, therefore, have a negative effect on workplace safety.

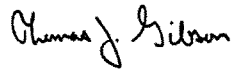
* * *

Thank you again for soliciting the domestic steel industry's input on the critical issue of how regulations may impact the economy and jobs. As detailed above, there are a number of regulations from both EPA and OSHA that, if not implemented correctly and appropriately, could limit the steel industry's global competitiveness, investment, and job growth in coming years.

AISI believes that the Congress should conduct a comprehensive oversight program of environmental and occupational health and safety regulatory development activities and initiatives. In particular, such a program should examine the impact of EPA and OSHA regulatory agenda on jobs and industrial competitiveness. Included in such an effort should be greater emphasis on cost/benefit analysis of proposed regulations at the EPA and OSHA, as well as greater transparency and industry access to the regulatory development process at the agencies.

AISI looks forward to working with you and the House Committee on Oversight and Government Reform on these and other issues in the 112th Congress.

Sincerely,



Thomas J. Gibson

FRED UPTON, MICHIGAN
CHAIRMAN

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ONE HUNDRED TWELFTH CONGRESS

Congress of the United States
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March 18, 2011

Dr. W. David Montgomery
Vice President
Charles River Associates
1201 F Street, N.W., Suite 700
Washington, D.C. 20004

Dear Dr. Montgomery:

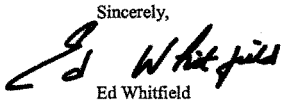
Thank you for appearing before the Energy and Power Subcommittee on March 1, 2011, to testify at the hearing entitled "EPA's Greenhouse Gas Regulations and Their Effect on American Jobs."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions to witnesses, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and then (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please e-mail your responses in Word or PDF format, to katie.novaria@mail.house.gov by the close of business on Friday, April 1, 2011.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

cc: The Honorable Bobby L. Rush, Ranking Member,
Subcommittee on Energy and Power

Subcommittee on Energy and Power
"EPA's Greenhouse Gas Regulations
and Their Effect on American Jobs"
March 1, 2011
Additional Questions for the Record

The Honorable Jay Inslee

1. Your written testimony stated: "My statements in this testimony represent my own opinions and conclusions and do not necessarily represent positions of my employer or any of its clients." Have you had any client for whom you have performed work relating to EPA's greenhouse gas regulations? If so, please identify those clients for the record.

2. Your testimony before the Committee critiqued a PERI study entitled "New Jobs—Cleaner Air: Employment Effects Under Planned Changes to EPA's Air Pollution Rules." Have you had any client for whom you have performed work relating to the PERI study? If so, please identify those clients for the record.

Subcommittee on Energy and Power
"EPA's Greenhouse Gas Regulations
and Their Effect on American Jobs"
March 1, 2011

Questions from the Honorable Jay Inslee

1. Your written testimony stated: "My statements in this testimony represent my own opinions and conclusions and do not necessarily represent positions of my employer or any of its clients." Have you had any client for whom you have performed work relating to EPA's greenhouse gas regulations? If so, please identify those clients for the record.

Answer: When I testified before the subcommittee on March 1, 2011 I had been employed by Charles River Associates (CRA) for 21 years, and all my work at CRA was covered by confidentiality agreements between myself and CRA and between CRA and its clients. At this time, I no longer work for CRA and I have been warned by CRA that I may not divulge any confidential information. I am also prevented from accessing any information about work I did at CRA. Therefore, I am unable to answer Mr. Inslee's question. Any questions about work performed by me at CRA would have to be answered by CRA's General Counsel, Jonathan Yellin, who can be reached at the CRA Boston office with telephone number 617-425-3000.

2. Your testimony before the Committee critiqued a PERI study entitled "New Jobs – Cleaner Air: Employment Effects Under Planned Changes to EPA's Air Pollution Rules." Have you had any client for whom you have performed work relating to the PERI study? If so, please identify those clients for the record.

Answer: When I testified before the subcommittee on March 1, 2011 I had been employed by Charles River Associates (CRA) for 21 years, and all my work at CRA was covered by confidentiality agreements between myself and CRA and between CRA and its clients. At this time, I no longer work for CRA and I have been warned by CRA that I may not divulge any confidential information. I am also prevented from accessing any information about work I did at CRA. Therefore, I am unable to answer Mr. Inslee's question. Any questions about work performed by me at CRA would have to be answered by CRA's General Counsel, Jonathan Yellin, who can be reached at the CRA Boston office with telephone number 617-425-3000.

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