

STATE PERSPECTIVES: QUESTIONS CONCERNING EPA'S PROPOSED CLEAN POWER PLAN

HEARING BEFORE THE SUBCOMMITTEE ON ENERGY AND POWER OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED THIRTEENTH CONGRESS SECOND SESSION

SEPTEMBER 9, 2014

Serial No. 113-172



Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

93-745

WASHINGTON : 2015

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

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan

Chairman

RALPH M. HALL, Texas
JOE BARTON, Texas
Chairman Emeritus
ED WHITFIELD, Kentucky
JOHN SHIMKUS, Illinois
JOSEPH R. PITTS, Pennsylvania
GREG WALDEN, Oregon
LEE TERRY, Nebraska
MIKE ROGERS, Michigan
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas
MARSHA BLACKBURN, Tennessee
Vice Chairman
PHIL GINGREY, Georgia
STEVE SCALISE, Louisiana
ROBERT E. LATTA, Ohio
CATHY McMORRIS RODGERS, Washington
GREGG HARPER, Mississippi
LEONARD LANCE, New Jersey
BILL CASSIDY, Louisiana
BRETT GUTHRIE, Kentucky
PETE OLSON, Texas
DAVID B. MCKINLEY, West Virginia
CORY GARDNER, Colorado
MIKE POMPEO, Kansas
ADAM KINZINGER, Illinois
H. MORGAN GRIFFITH, Virginia
GUS M. BILIRAKIS, Florida
BILL JOHNSON, Missouri
BILLY LONG, Missouri
RENEE L. ELLMERS, North Carolina

HENRY A. WAXMAN, California
Ranking Member
JOHN D. DINGELL, Michigan
Chairman Emeritus
FRANK PALLONE, JR., New Jersey
BOBBY L. RUSH, Illinois
ANNA G. ESHOO, California
ELIOT L. ENGEL, New York
GENE GREEN, Texas
DIANA DEGETTE, Colorado
LOIS CAPPS, California
MICHAEL F. DOYLE, Pennsylvania
JANICE D. SCHAKOWSKY, Illinois
JIM MATHESON, Utah
G.K. BUTTERFIELD, North Carolina
JOHN BARROW, Georgia
DORIS O. MATSUI, California
DONNA M. CHRISTENSEN, Virgin Islands
KATHY CASTOR, Florida
JOHN P. SARBANES, Maryland
JERRY McNERNEY, California
BRUCE L. BRALEY, Iowa
PETER WELCH, Vermont
BEN RAY LUJAN, New Mexico
PAUL TONKO, New York
JOHN A. YARMUTH, Kentucky

SUBCOMMITTEE ON ENERGY AND POWER

ED WHITFIELD, Kentucky
Chairman

STEVE SCALISE, Louisiana
Vice Chairman
RALPH M. HALL, Texas
JOHN SHIMKUS, Illinois
JOSEPH R. PITTS, Pennsylvania
LEE TERRY, Nebraska
MICHAEL C. BURGESS, Texas
ROBERT E. LATTA, Ohio
BILL CASSIDY, Louisiana
PETE OLSON, Texas
DAVID B. MCKINLEY, West Virginia
CORY GARDNER, Colorado
MIKE POMPEO, Kansas
ADAM KINZINGER, Illinois
H. MORGAN GRIFFITH, Virginia
JOE BARTON, Texas
FRED UPTON, Michigan (ex officio)

BOBBY L. RUSH, Illinois
Ranking Member
JERRY MCNERNEY, California
PAUL TONKO, New York
JOHN A. YARMUTH, Kentucky
ELIOT L. ENGEL, New York
GENE GREEN, Texas
LOIS CAPP, California
MICHAEL F. DOYLE, Pennsylvania
JOHN BARROW, Georgia
DORIS O. MATSUI, California
DONNA M. CHRISTENSEN, Virgin Islands
KATHY CASTOR, Florida
HENRY A. WAXMAN, California (ex officio)

CONTENTS

	Page
Hon. Ed Whitfield, a Representative in Congress from the Commonwealth of Kentucky, opening statement	1
Prepared statement	3
Hon. Jerry McNerney, a Representative in Congress from the State of California, opening statement	4
Hon. Joe Barton, a Representative in Congress from the State of Texas, opening statement	5
Hon. Fred Upton, a Representative in Congress from the State of Michigan, opening statement	104

WITNESSES

Kenneth W. Anderson, Jr., Commissioner, Public Utility Commission of Texas	7
Prepared statement	10
Tom W. Easterly, Commissioner, Indiana Department of Environmental Management	25
Prepared statement	27
Henry R. Darwin, Director, Arizona Department of Environmental Quality	31
Prepared statement	34
Kelly Speakes-Backman, Commissioner, Maryland Public Service Commission	37
Prepared statement	39
David W. Danner, Chairman, Washington Utilities and Transportation Commission	48
Prepared statement	51
Travis Kavulla, Commissioner, Montana Public Service Commission	56
Prepared statement	59

SUBMITTED MATERIAL

Petitioners' motion filed September 3, 2014, State of West Virginia v. United States Environmental Protection Agency, submitted by Mr. McKinley* ..	106
U.S. Energy Information Administration tables, submitted by Mr. Whitfield ...	111
Statement of the National Association of Home Builders, submitted by Mr. Whitfield	114
Subcommittee memorandum	120
Letter of August 19, 2014, from the State of Mississippi Department of Environmental Quality to the U.S. Environmental Protection Agency	120

* The information has been retained in committee files and is also available at <http://docs.house.gov/meetings/IF/IF03/20140909/102623/HHRG-113-IF03-20140909-SD010.pdf>

STATE PERSPECTIVES: QUESTIONS CONCERNING EPA'S PROPOSED CLEAN POWER PLAN

TUESDAY, SEPTEMBER 9, 2014

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

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2123, Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Present: Representatives Whitfield, Hall, Shimkus, Terry, Latta, Olsonm McKinley, Gardner, Kinzinger, Griffith, Barton, Upton (ex officio), McNerney, Tonko, Yarmuth, Green, Capps, Barrow, Castor, and Waxman (ex officio).

Staff Present: Nick Abraham, Legislative Clerk; Gary Andres, Staff Director; Charlotte Baker, Deputy Communications Director; Sean Bonyun, Communications Director; Leighton Brown, Press Assistant; Allison Busbee, Policy Coordinator, Energy and Power; Patrick Currier, Counsel, Energy and Power; Tom Hassenboehler, Chief Counsel, Energy and Power; Brandon Mooney, Professional Staff Member; Mary Neumayr, Senior Energy Counsel; Chris Sarley, Policy Coordinator, Environment and Economy; Peter Spencer, Professional Staff, Oversight; Jean Woodrow, Director, Information Technology; Phil Barnett, Minority Staff Director; Alison Cassady, Minority Senior Professional Staff Member; Caitlin Haberman, Minority Policy Analyst; and Alexandra Teitz, Minority Chief Counsel for Energy and Environment.

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

Mr. WHITFIELD. I would like to call the hearing to order this morning and certainly want to welcome our witnesses, and I will be introducing each one of you after our opening statements.

And at this time, I would like to recognize myself 5 minutes for an opening statement.

This morning's hearing focuses on EPA's proposed Clean Power Plan which would impose Federal limits on carbon emissions from each state's electricity system. This is our third hearing on the subject, and the previous two hearings left many questions unanswered about EPA's legal authority to impose this sweeping global warming agenda under a rarely used provision in the Clean Air

Act, about the feasibility of implementing EPA's unprecedented and highly complicated scheme, and about the potential adverse impacts on electricity costs, reliability, and economic growth.

Recently, the President has been criticized by a lot of people for being indecisive relating to ISIS, immigration reform, Ukraine, national security, and other issues. The one issue where he has not been criticized for being indecisive has been addressing climate change. He has made it very clear that he thinks it is the number one issue facing mankind today.

Those of us who disagree with him on this issue do not deny climate change. We simply suggest that his priorities are wrong, and after having spent the last month back in our districts, I think it was reinforced to many of us that there are many significant issues more important to American people as well as the world today than climate change. For example, if you went to Liberia where they had the Ebola outbreak, I don't think they would say climate change is the most important issue. Clean water, healthcare access, jobs, economic growth, all of those things are vitally important to not only the American people but people throughout the world.

Now, the end of this month the United Nations is going to have their climate change policy. There have been all sorts of news stories recently about heads of states will not be attending from China, from India, from Germany, and many countries like Australia have recently abolished their carbon tax policies in that country. So, it is not about denying climate change. It is about the priorities that at this particular time in our history.

Now, the President is being more aggressive through EPA than any recent memory of EPA actions. There has been a plethora of regulations coming out that has been pretty damaging to our economy, and many people are of the firm belief that our economy is still sputtering because this administration has created so much uncertainty and obstacles to economic growth.

And as you know, we are one of the few countries in the world where you cannot even build a new coal powered plant because it is so costly and the technology is not available to meet the stringent standards and emissions standards set by EPA.

Even in Europe, which is viewed as most—they have more renewable energy produced from electricity than any other area of the world, they are building coal plants because the natural gas prices coming from Russia are so high that they have that flexibility. We don't have that flexibility in America because of this Administration.

And so now, today, we are going to be addressing the federalization of the electric generating system by this EPA setting standards for emissions for every state in the country of CO₂, and yet, we don't—America, we don't have to take a back seat to anyone on being concerned about our environment. Our CO₂ emissions are the lowest they have been in 20 years.

And so, as Congress, we have the responsibility and we are delighted to have you here today because you represent the states, and some of you are fully supportive of the Obama Administration's policies and some of you are not, but we want to know what you think. This is a complex rule. It is not going to be easy to deal

with, and it is going to bring forth a lot of unanswered questions, and it definitely is having an impact on economic growth.

So we look forward to your testimony. I will tell you that in Kentucky, our environmental protection state group has been trying to cooperate with the Obama Administration and EPA, and our Democratic attorney general who is running for governor sued him just a couple of weeks ago because he is so upset about it.

So it is one thing for the President to want to be a world leader in addressing climate change, but why should America be pushed out further than any other country in the world, and that is what we want to try to address today, and we look forward to your testimony.

At this time, I would like to recognize the gentleman from California, Mr. McNerney, for his 5-minute opening statement.

[The prepared statement of Mr. Whitfield follows:]

PREPARED STATEMENT OF HON. ED WHITFIELD

This morning's hearing focuses on EPA's proposed Clean Power Plan, which would impose federal limits on carbon dioxide emissions from each state's electricity system. This is our third hearing on the subject and the previous two hearings left a great many questions unanswered—about EPA's legal authority to impose this sweeping global warming agenda under a rarely-used provision in the Clean Air Act, about the feasibility of implementing EPA's unprecedented and highly complicated scheme, and about the potential adverse impacts on electricity costs, reliability and economic growth.

The last hearing focused on FERC, and I must say that I was disturbed to learn the extent that FERC was being bypassed by EPA in its attempt to consolidate control over the manner in which electricity is generated and consumed in the United States. Today, we will hear from the states, whose primary role in overseeing the electric sector for their citizens is also being jeopardized by EPA's proposed rule.

It is important to remember that EPA has no energy policy-setting authority or expertise. These responsibilities reside primarily with the states or other federal agencies, and EPA's role historically has been confined to regulating emissions from electric generating units. Never before has the agency sought to set standards that extend to nearly every aspect of electricity generation, distribution, and use. And never before has EPA—or any other federal agency—proposed to exert ultimate authority—including enforcement authority—over state decision-making in the electric sector. But EPA is doing so now with the Clean Power Plan. And aside from the fundamental legal issues, there is a long list of concerns about the workability of this scheme.

EPA has tried to spin its proposal as a helpful list of sensible steps for states to take—what it calls “building blocks.” To the extent that some of these policies make economic sense, states should be free to take those actions in the interest of their citizens. But they shouldn't be compelled to undertake actions and measures that may impose increased costs and other harms. Make no mistake: the Clean Power Plan is coercive—either a state comes up with a plan that meets with EPA's approval, or EPA will impose its own Federal Implementation Plan.

And I must add that the provisions in the Clean Power Plan affecting coal-fired generation are especially destructive when viewed in the context of all the other regulations targeting this energy source. EPA's latest proposed rule adds to the cumulative burden that is making it nearly impossible to keep coal in the energy mix. Indeed, we are already seeing coal-fired capacity being retired at an alarming rate—much faster than EPA's projections—and this raises serious concerns about electric reliability, not to mention all of the jobs that depend on coal. The President's direct assault on coal is also a likely contributor to rising residential electricity prices that the Energy Information Administration recently reported.

EPA also likes to tout its proposed rule as being ‘flexible’ but it would actually undercut each state's flexibility to respond to changing circumstances because after an implementation plan is approved by the EPA, a state will have ceded authority over its energy sector to the federal government. For example, if a state legislature decides that its renewable portfolio standard (RPS) is problematic, that legislature would be prevented from amending it without first obtaining EPA permission. If the State amends or freezes it without permission it may be subject to EPA enforcement

or subject to a private party lawsuit. As it is, states are constantly considering modifications to their energy policies to better meet consumer needs, but under EPA's proposal each state will be stuck with a rigid federal plan and won't be able to easily adapt to changing circumstances.

Unlike EPA, state-level officials are the ones who are held accountable to their consumers and businesses, and bear the responsibility of keeping electricity affordable and reliable. They have to deal with all the implementation challenges, including resolving the conflicts between the Clean Power Plan and their own state laws and regulations. That is why their views on the Clean Power Plan are so vitally important and why this hearing is critical to gathering the perspective necessary to understand the challenges confronting the states.

OPENING STATEMENT OF HON. JERRY MCNERNEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. MCNERNEY. Thank you, Mr. Chairman.

I thank the panelists for coming today. I know it is a lot of work to prepare and coming out here, so I thank you for that effort.

As the chairman said, this is our third meeting on the EPA's Clean Power Plan but it is our first opportunity to hear directly from state officials who will be responsible for helping to implement the plan.

Let me start off by saying that it is getting more and more difficult to deny climate change. Climate change is already here. You can see it if you watch changing weather patterns here in the United States and around the globe. We need to face up to this problem and start taking the steps necessary to keep this phenomenon from becoming a global catastrophe.

Moreover, the steps to curb carbon emissions will have many beneficial effects, including economic and public health. We have the opportunity now for the United States to be the leader in the carbon pollution reduction. The Clean Air Act clearly gives the EPA administrator the authority to put in place measures to reduce carbon dioxide production, and this authority has been upheld in the courts. This administration has the responsibility and the duty to take action.

This being the case, what would be the best way to go about reducing carbon emissions? The electric power generation sector is the biggest source of CO₂ emissions, and it makes sense to have fossil fuel plants operating as efficiently as possible. Coal-fired power plants have the highest CO₂ emissions per kilowatt hour energy produced, so they should be cleaned up and incentives should be given to other sources when possible. Unfortunately, this committee has not fully gotten behind carbon capture and sequestration. In fact, this committee has done quite a bit to prevent carbon capture and sequestration which limits the options for coal-fired power plants.

We should also encourage as much input from the states and from industry as possible to make sure that no region is unfairly impacted and to encourage each state, to the extent practical, to utilize any renewable sources that are available in their region.

In addition, states need flexibility to meet these goals, taking into account local resources and existing power infrastructure and to foster regional cooperation. The EPA has done these things, and its Clean Power Plan will accomplish each of these goals: flexibility,

regional and state focus, and reduction in pollution, energy efficiency.

Looking to the future, as our country incorporates cleaner energy sources such as natural gas and develops more renewable energy sources, we must ensure that our electric infrastructure is able to meet those changes. Working to protect reliability for consumers will come from creating a more effective electric grid, identifying ways to be more efficient, instituting demand response programs, improving transmission and distribution systems, and other technological innovations will all help to modernize the grid and create one that is more resilient. This is a critical issue that we need to address moving forward.

I look forward to hearing from our witnesses and appreciate them taking the time again to be with the committee this morning, and I would like to recognize my colleague from Texas, Mr. Green.

Mr. GREEN. I would like to thank Congressman McNerney for recognizing me, and thank the chair and ranking member for holding the hearing today.

I want to thank our public utility commissioners for coming and testifying today. I specifically want to acknowledge our Texas public utility Commissioner Kenneth Anderson. By way of background, Commissioner Anderson attended Georgetown University just down the road before he came to his senses and went back home to SMU to have his—to get his law degree. He served the State of Texas in many capacities, and I would like to thank him for his thoughtful work he has done over the years.

Recently, finalizing the existing source performance standard created a proposal that would help states meet the requirements of the rule. The proposal suggests four blocks that address power plant efficiency, fuel switching, and renewable and electric energy efficiency.

It is no secret that Texas is leading the nation in many of these areas. Thanks to the Permian Basin and Eagle Ford Shale, we have been the leader in fuel switching. If Texas were its own country, and we once were, it would be the third largest gas producer in the world. Texas has more than 14,000 megawatts of wind power. Solar power will grow from 200 megawatts to 1,100 megawatts by 2017, making Texas the number 1 state in solar growth.

Texas has solar companies competing directly in the wholesale market. Houston and Texas cities are leading the Nation in commercial efficiency, electric energy efficiency; however, EPA's plan has required Texas to do twice as much. The rule has raised some questions for both state and Federal agencies, and we need to get the answers, and I appreciate the hearing today, and again, thank our panel, and I yield back my time.

Mr. WHITFIELD. Thank you very much, and at this time I would like to recognize the gentleman from Texas, Mr. Barton, for 5 minutes.

**OPENING STATEMENT OF HON. JOE BARTON, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS**

Mr. BARTON. Thank you, Mr. Chairman.

I too want to welcome PUC Commissioner Kenneth Anderson to us. We have an all star panel of local and state officials here. This could be one of the better hearings on this subject because we are going to hear directly from those that are closest to the issue and the implementation of this proposed regulation if it is to be implemented.

As Congressman Green pointed out, Commissioner Anderson has a diverse background and a very experienced background in various regulatory issues in Texas. He has been appointed at local level by the Dallas County Commissioner's Court, and he has been appointed to various positions of authority by Governor Bill Clements, Governor George Bush, and of course now, Governor Rick Perry. We are very glad to get his expertise, as Congressman Green pointed out. If this regulation is implemented, Texas will bear a disproportionate share of the cost, 25 percent of the entire country's reductions has to be in Texas, and as Gene pointed out, we are leading the Nation in job growth and economic growth and leading the Nation in energy and production, so this is an important issue for every, every Texan.

In terms of the broader perspective, as Chairman Whitfield pointed out in his town hall meeting, I have had numerous town hall meetings and chamber of commerce meetings, in various home builders, real estate meetings in my district this past month. Global warming did come up, climate change did come up, but in every instance, it was in the negative sense of, why is EPA trying to regulate navigable water streams? Why is EPA trying to do things that make it very difficult for us to do business?

It is a fact that climate change is happening, but all you have to do is go to any natural history museum and see that the climate has always been changing. It is debatable what causes it, but it is a fact that it is happening. People like myself and the chairman would say, we should try to make our energy sector more efficient, we should try to make our industrial sector more efficient. To the extent you do that, and you put cost in the equation, you will have less energy consumed to get more output, and if in fact man is partially responsible for the change in the climate, you are going to get that benefit, but to focus on climate change as the dominant factor is self-defeating.

You ask somebody in India or Africa, are you not going to put in a power plant because of the CO₂ emissions, they will laugh at you, as they should. Would we not have built the transcontinental railroad in the 1850s and 1860s because we were worried about climate change? Or the interstate highway system in the 1950s and 1960s because we were worried about climate change? It is an issue, but it should not be the dominant issue.

So, Mr. Chairman, today's hearing is going to be very interesting because, as I said at the beginning, this is an opportunity for the members of this subcommittee to hear directly from the regulators and the implementers that are most responsible for implementing these regulations if in fact they do become permanent.

With that, I yield back.

Mr. WHITFIELD. Thank you, Mr. Barton.

And Mr. Waxman wants to give an opening statement, and he is testifying over on the Senate side, and when he comes over, we will take the appropriate step to allow him to do that at that time.

So at this time, we would like for—I am going to introduce each of you individually as your time comes to give your 5-minute opening statement. And once again, I really appreciate all of you being here. You-all are out there on the frontline, so we know that you will provide some insights to all of us that will be helpful.

And so, Mr. Anderson, you will be the first one to give an opening statement, and he has already been introduced, but he is the commissioner of the public utility in Texas, and Mr. Anderson, you will be recognized for 5 minutes.

I would remind all of you that on the table there is the little light system, and green means go and red means stop, so you are each recognized for 5 minutes, and Mr. Anderson, thank you for being here, and you may proceed.

STATEMENTS OF KENNETH W. ANDERSON, JR., COMMISSIONER, PUBLIC UTILITY COMMISSION OF TEXAS; TOM W. EASTERLY, COMMISSIONER, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT; HENRY R. DARWIN, DIRECTOR, ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY; KELLY SPEAKES-BACKMAN, COMMISSIONER, MARYLAND PUBLIC SERVICE COMMISSION; DAVID W. DANNER, CHAIRMAN, WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION; AND TRAVIS KAVULLA, COMMISSIONER, MONTANA PUBLIC SERVICE COMMISSION

STATEMENT OF KENNETH W. ANDERSON

Mr. ANDERSON. Thank you, Mr. Chairman, and members of the subcommittee. I appreciate the opportunity to appear before you today to discuss the proposed rule. A couple of important points that I want to make at the beginning.

First, I am not really here to debate carbon or climate change. It is really my focus both today and as a member of the commission, is to address how the EPA has chosen to address the issue of carbon, and I actually want to give them credit for recognizing, at least in my experience the first time, that the states are different and are in different positions.

Nevertheless, the more than 600-page proposal, in addition to all the supporting data, is complex and it raises a number of complex issues and questions and problems. An introductory point is the ERCOT which is our grid operator in Texas, the PECT, the commission, and the stakeholders in Texas are studying the rule, analyzing the data, and attempting to formulate their comments, but because of the complexity of the rule, we are still in the early stages, and in fact ERCOT, last month we asked ERCOT to do an in-depth analysis of the potential impacts under various scenarios of the proposed rule. They are not going to have that study done until late this year, December, and so it is going to make informed comments, definitively informed comments a difficult proposition.

And so it bears keeping in mind that my remarks today, which will be focused on Texas, remain necessarily qualified in that they

reflect only a preliminary assessment, of the proposed Clean Power Plan.

Let me give you a little background for those who don't know. We are a little different in Texas, of course, we are always proud of that, we are the only state in the union that has parts of its state in all three grids, the western interconnect, the eastern interconnect, and ERCOT. With respect to ERCOT, our grid, it covers three quarters of the state and about 85 percent of the electricity consumed. Because it is an intrastate grid and it is not synchronically connected to other grids, we are proud that ERCOT is non-FERC jurisdiction.

The PECT regulates both the wholesale as well as retail service within ERCOT. It is an island which also implicates reliability. We are disproportionately affected by the proposed rule. If we read the proposal the right way or correctly, we could be responsible for as much as 25 percent of the reduction nationwide while we only produce about 11 percent of the energy in this country.

One of the reasons that the rule is going to be a problem is that it gives us no credit for the substantial investment in renewables. It has been principally wind, but it is not just the actual wind itself but in the infrastructure necessary to transmit that wind into the load serving areas of the state. We just recently completed a \$6.9 billion, 3,600-mile transmission project in order to bring wind from West Texas into the load serving vicinity centers of the state.

In addition, our market, as the chairman indicated regarding the proposed blocks, that are proposed by the EPA, block 1, for example, the improvement in efficiencies of coal-fired power plants, most of those efficiencies have already been achieved in ERCOT. The reason is our wholesale market in ERCOT is very competitive and has been ruthless, frankly, in squeezing out efficiencies in power plants. If power plants are not operating at their most efficient, they are forced out of the market.

We in fact, over the last decade or more than a decade, have caused the retirement of over 13,000 megawatts of old, old units, mostly the old steam units, but the fact of the matter is those were dirty inefficient plants, and the ERCOT market basically made them uneconomical.

The remaining building blocks 2 and 3, the 70 percent utilization rate for compliance cycles as well as a block 3 which would basically require us to increase our renewables by another 150 percent, so that would take our installed capacity from what will be in a couple of years, we expect 15 to—between 15- and 18,000 megawatts of wind, and it is a little unclear how much solar we will have, but we are seeing it—we are seeing the development of utility scale solar. We will see that grow between 25- and 30,000 megawatts. The problem is that during parts of the seasons in Texas, our load is as low as 25,000 megawatts.

We have a very peaky system. In the summer it can be as high as 68,000. In the evenings, in the fall and spring as low—below 25,000.

Here is our dilemma. You could have a situation result where for hours in the evenings during the spring and fall, which is when wind in Texas, West Texas wind is blowing at its strongest, would literally—you will not only back off all your gas plants but you

could very well back off the nuclear plants. If they can't back off, and frankly, they are not designed to ramp.

Mr. WHITFIELD. Mr. Anderson, excuse me, our lights are not working, but I have let you go about a minute and 40 seconds over, but——

Mr. ANDERSON. I apologize. I look forward to answering any questions.

Mr. WHITFIELD. Yes. Well, thank you. It is a complicated issue, and it is hard to cover all the issues in 5 minutes, but we will be asking you some questions also, and we have your testimony.

[The prepared statement of Mr. Anderson follows:]

**Testimony before the Energy and Power Subcommittee
of the House Energy and Commerce Committee
Texas Public Utility Commissioner Kenneth W. Anderson, Jr.**

Executive Summary

Texas is the only state that has a physical presence within all three electric interconnections. In Texas, 85% of the electricity is consumed within the Electric Reliability Council of Texas power region (ERCOT), a non-FERC jurisdictional restructured, competitive, energy-only wholesale and largely competition retail market (the Texas ERCOT market). ERCOT's electric grid, which covers approximately 75% of the state, is an island with only limited direct current ties to the eastern and western interconnections. The remaining 15% of electric consumption takes place in areas outside of ERCOT served by cooperatives and vertically integrated, investor-owned utilities whose rates and terms of retail service are regulated by the Public Utility Commission of Texas (PUCT). All of the Texas utilities (public or private) located in the eastern interconnection are members of the Southwest Power Pool or the Midcontinent Independent System Operator.

Texas is disproportionately affected by the United States Environmental Protection Agency's (EPA) proposed Section 111(d) Clean Power Plan rule. The rule as proposed raises substantial questions around fairness (EPA proposes that Texas should account for 18% to 25% of national CO₂ reduction), cost, implementation alternatives, system reliability and whether compliance is even physically possible, at least within the timelines proposed by the EPA. The EPA compliance building blocks actually work at cross purpose, at least in Texas, largely because they do not give any credit for substantial improvements made since 2001, much less 2005, or recognize how security constrained economic dispatch works in organized wholesale power markets. For example, EPA's "building block" 1 (6% across the board improvement in

Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 2 of 15

coal-fired heat rate) assumes that efficiency improvements are still available. The Texas ERCOT competitive market has already forced coal-fired generators to adopt state of the art technologies available to improve thermal efficiencies in order to compete effectively. Another example: “building blocks” 2 (70% capacity factor of natural gas combined-cycle generation) and 3 (increase in non-hydroelectric renewable energy megawatt hours (MWh) to 20% of the state’s total energy produced) act counter to each other in Texas, making “building block” 1 impossible to achieve, and simultaneously worsening emissions of not only CO₂, but other harmful pollutants. “Building block” 3 assumes that the Texas renewable energy production can increase to a level above the minimum load in the Texas ERCOT market. Putting aside the timing, cost, and reliability issues, relying on this compliance alternative will likely shut down all other generation during certain times of the day, including nuclear. This creates a paradox. Texas cannot achieve both a 70% capacity factor for gas combined cycle plants and 20% renewable energy production without increasing CO₂ emissions. This occurs, in part, because the 2012 energy baseline year selected by the EPA does not give Texas any credit for the already dramatic increase in Texas wind generation that delivered 35.917 million MWh (16.24% of this nation’s non-hydro renewable generation) in 2013.¹

¹ United States Energy Information Administration, *Electric Power Monthly*, Data for June 2014, released August 25, 2014, Table 1.1.A Net Generation from Renewable Sources: Total (All Sectors), 2004 – June 2014. American Wind Energy Association, *Wind Energy Generation by State, 2013*, <http://www.awea.org/generationrecords>. For 2013, conventional hydroelectric is shown to be 269.136 million MWh. However the industrial sector used 3.4 million MWh of hydroelectric power generated in 2013, see US EIA note 4, at 94. Therefore, US renewable energy generated in 2013 less hydroelectric power in the Electric Power Sector was $487 - 269.136 + 3.4 = 221.264$ million MWh. $35.937/221.264 = 16.24\%$ of US electric power sector renewable generation not including hydroelectric.

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 3 of 15

EPA's Clean Power Plant Rule Applied to Texas

In early June of 2014 the EPA proposed a rule for reducing carbon dioxide (CO₂) emissions from existing power plants under Section 111(d) the Clean Air Act. As proposed, the rule requires each state to reduce its overall CO₂ rate of emission from existing power plants to a state-specific level, with an interim target to be reached by 2020 and the final rate to be achieved by 2030. The standard is set in pounds per MWh. The state standards vary dramatically, with Texas' standard set at a 2020 level of 853 lbs/MWh which must decline to 791 lbs/MWh by 2030. It is worth noting that both the interim and final standards applied to Texas is substantially lower than the CO₂ per MWh emission level required by the EPA to be achieved by new coal or gas power plants under Section 111(b) of the Clean Air Act. EPA's proposal would require Texas to account for somewhere between 18 to 25% of the country's total CO₂ reductions.

In the proposed Clean Power Plan rule the EPA set out four "building blocks" as the Best System of Emissions Reductions (BSER) to be used by the States in their State Implementation Plans (SIP) to reduce overall CO₂ emissions from existing power plants. As applied to Texas, the four building blocks are: (1) across the board coal plant heat rate improvements of approximately 6% (Block 1), (2) re-dispatch of existing coal plants so that gas combined cycle plants achieve roughly a 70% utilization rate or capacity factor² (Block 2), (3) an increase renewable energy produced (primarily from wind) of approximately 150% based upon Texas' 2012 energy output (Block 3), and (4) a substantial increase in energy efficiency programs (Block 4).

²By comparison, based solely on economic dispatch, gas plants, including both combined cycle and combustion turbines, produced 40.5% of all of the energy in ERCOT in 2013.

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 4 of 15

BSER Block 1: The Texas ERCOT Market has already achieved substantial improvements in efficiency

The improvements offered by Block 1 may be illusory. The EPA's proposed rule assumes that substantial thermal efficiencies can still be obtained from coal plants in Texas. However, at least within the ERCOT interconnection, there likely is little room for improvement in Block 1's heat rate improvement goal because much of the assumed efficiencies have already been implemented by coal-fired generation because of the competitive market.

ERCOT's energy market design has achieved this result by eliminating older, less efficient, and therefore less competitive generating facilities. Since 2002, over 13,000 megawatts (MW) of old thermal generation plants have been retired. Owners of generation are forced to make upgrades to their existing generating facilities to improve their thermal efficiencies so that they can remain competitive. If they are unable or unwilling to do so, they are driven from the market. Historically, new more efficient (and cleaner) units have stepped in to replace the older units. ERCOT's competitive market has in effect, already been implementing Block 1 for over a decade. By using 2012 as the base year, Texas gets no credit for having already achieved a significant amount of EPA's Block 1 goals.

The Paradoxes of Blocks 2 & 3

Within ERCOT, nuclear and coal-fired power plants provide base load generation and are most efficient (and with respect to coal plants, cleaner environmentally) when operating at or near 100% of capacity. ERCOT's nuclear generation fleet (in excess of 5,200 MW) was not designed for load following and therefore has very limited ramping capability. The Texas nuclear units operate most efficiently at 100% of capacity. Among other issues, operating a

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 5 of 15

nuclear facility at lower efficiency means that the plant creates more spent nuclear fuel per megawatt hour of electricity production. Coal (as well as most gas-fired) generation also operates most efficiently at or near 100% capacity. While a base load coal facility has more ramping capability than a nuclear facility, emissions of CO₂, as well as other emissions that actually are harmful to life such as NO_x and SO₂, increase substantially when ramping up or down or otherwise operating at less than 100% of capacity.

Figures 1 and 2 below illustrate seasonal load profiles experienced in Texas. Figure 1 is a typical August day in Texas. The ERCOT load almost doubles a summer day, increasing from about 36,000 MW to over 68,000 MW. This increase occurs over a 12 hour period. Figure 2 is a typical spring or fall day and shows how low the load in ERCOT typically can dip in the spring or fall. Texas must have a balanced diversified generation mix in order to be able to start up generation facilities as load climbs, and then be able to ramp them down as load declines.

Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 6 of 15

Figure 1: Typical Summer Load Profile

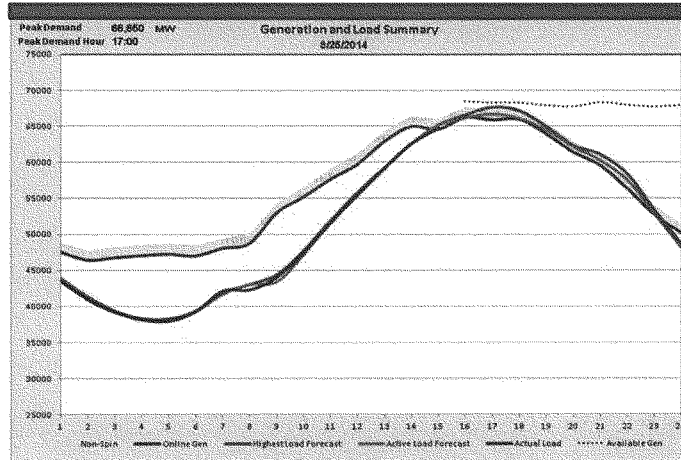
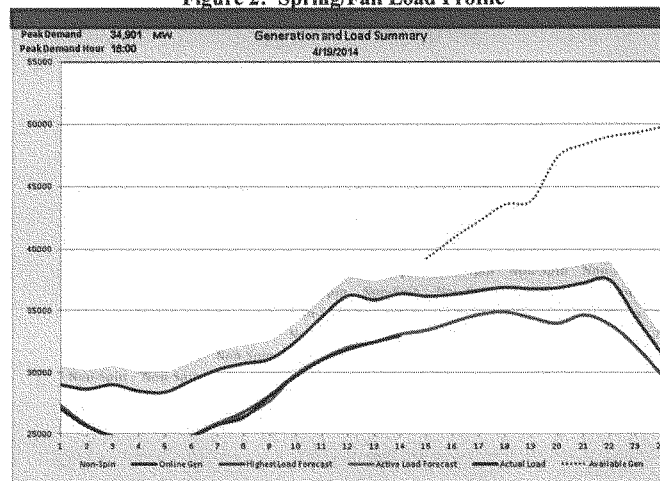


Figure 2: Spring/Fall Load Profile



While Figure 1 shows the 30,000 MW swings that the diversified ERCOT generation fleet must be able to handle in the summer, Figure 2 demonstrates a different problem that can

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 7 of 15

occur with too much renewable generation. Between 3:00 a.m. and 6:00 a.m. electricity consumption can drop below 25,000 MW. ERCOT already has experienced days in which wind has provided as much as 38.4%³ of the generation on the system. If Texas were to use Block 2 in any SIP in an attempt to comply with EPA's proposed Clean Power Plan, both practical as well as perverse difficulties would result. Wind turbines in Texas typically have a much higher capacity factor during spring and fall months. During the spring and fall a 20% renewable energy goal as proposed by the EPA under Block 3 could put more renewable generation on the grid than there is existing load. Consequently, during the early morning hours ERCOT would have to both curtail a substantial amount of the wind and back or shutdown much of the nuclear fleet and all other thermal generation, simultaneously reducing the effectiveness of both Block 2 and Block 3. As previously noted, nuclear generators operate most efficiently at or near 100% capacity. The practical problem is that large nuclear generating units are not designed to ramp up and down quickly or easily. The result of too much wind on the system would be that either the nuclear plants would bid negative prices in order to remain on the system, which would impair the financial viability of all on-line generation including the wind farms (particularly if the production tax credit is not renewed, because it enables wind farms to bid negative prices and still earn money) or the nuclear plant would have to shut down, which takes time and presents another Clean Power Plan rule compliance problem. ERCOT's nuclear plants are pressurized water reactors that are not designed for load following. After shutting down to the condition of hot standby, it takes about 12 hours for large nuclear generating units to start and return to full service. During that period, as wind declines, as it inevitably would (see Figure 3 below), the

³ ERCOT News release, *Wind generation output in ERCOT tops 10,000 MW, breaks record*, reporting two records broken. On March 26, 2014 instantaneous output reached 10,296 MW at 8:48 p.m. (nearly 29% of total system load), and on March 27, 2014 at 3:19 a.m. when 9,868 MW served a record 38.43% of the 25,677 MW system-wide demand.

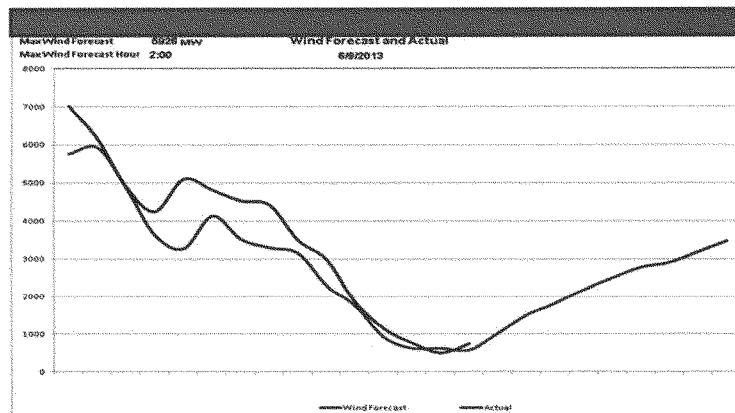
Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 8 of 15

gap would have to be filled by CO₂ emitting resources such as gas-fired combined cycle or combustion turbine units; presumably an outcome that EPA would prefer not occur.

Like nuclear units, base load coal-fired generation units operate most efficiently when they are at or near 100% capacity. Too much renewable energy could cause them to operate at less than peak efficiency and result in more CO₂ and other actually harmful pollutants being emitted.

But Blocks 2 and 3 yield a paradox as well. In a diversified, efficient market, Blocks 2 and 3 work at cross purposes. Figures 3 and 4 show the high variability of wind.

Figure 3: 93% Drop in Wind Production in 12 Hours



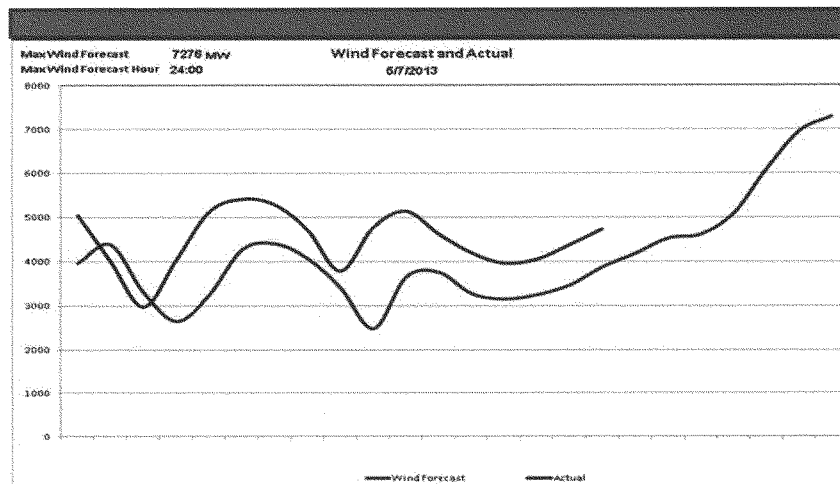
On the day referenced in Figure 3, wind generation dropped 93% (a total loss of 6,500 MW) over 13.5 hours. An over reliance on wind coupled with a possible 93% reduction of wind generation on any given day requires an increased reliance on flexible gas generating units and

Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 9 of 15

less on base load units.⁴ This introduces inefficiencies into ERCOT's system and likely means that nuclear generating units will be backed down when it is windy, only to be replaced with combined cycle or simple cycle gas turbine units. Because of the variability of wind and other renewable generation occurs rapidly, in minutes, ERCOT's nuclear fleet cannot respond efficiently because the units are not designed for load following operations.

An example of what the ERCOT generation mix must be able to handle over very short periods of time is shown in Figure 4, below.

Figure 4: Variability of Wind Can Be Frequent and Extreme



⁴Yih-huei Wan, *Analysis of Wind Power Ramping Behavior in ERCOT*, NREL Technical Report NREL/TP-5500-49218, (March 2011). "It is clear that the variability of wind power affects the system operations." at 3. "The more installed wind power capacity will result in a higher wind power ramping-rate, and wind power can change at a very fast rate in a short-time frame." at 13. The more wind capacity there is on the system, the greater the magnitude of the ramping events will be. Figure 4 shows a magnitude of 6,500 MW (2014). The worst case in 2008 was a 3,430 MW loss of wind power in 10.8 hours. The greater the magnitude, the less Texas can rely on base load generation like nuclear generation.

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 10 of 15

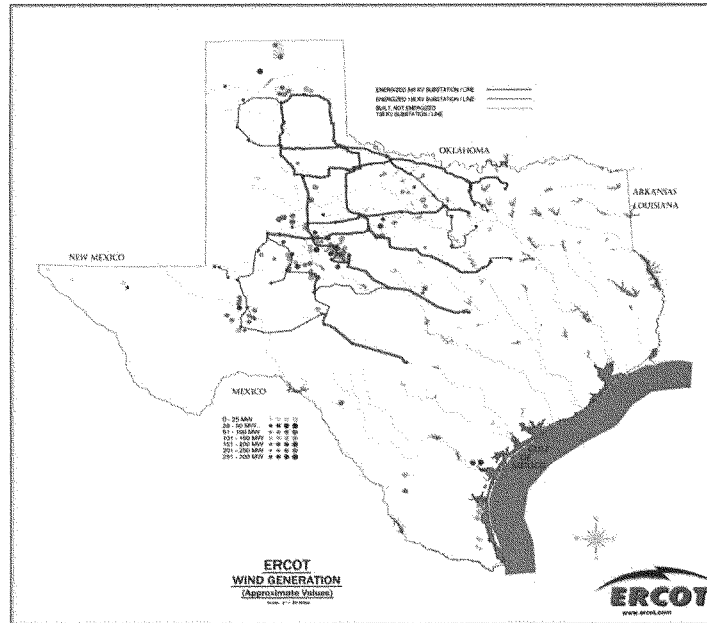
On May 5, 2013, ERCOT experienced three cycles of between 2,000 and 1,000 MW changes in wind production in a 14 hour period. This is the equivalent to having 1,500 MW of thermal generation trip off line three times in 14 hours. Flexible natural gas-fired generation can handle the variability of wind and other renewable generation best because of its ramping ability, however, even gas combined cycle generation is most efficient when operated at or near 100% of capacity.

Texas Receives No Credit for Previous Renewable Investments Made

The EPA's proposed Clean Energy Plan rule ignores the significant renewable energy development that has occurred in Texas during the preceding decade. Even with the extreme variations in wind generation that can occur over the course of the year, in 2013 Texas wind generation produced 35.917 million MWh (16.24% of the nation's non-hydro renewable generation). However, the 2012 base year selected by the EPA for the proposed Clean Power Plan rule does not give Texas credit for the societal and financial commitments to facilitate renewable energy. From 2005 through 2011 Texas added over 8,500 MW of wind capacity, of which 8,300 MW were built within ERCOT. Figure 5 shows the \$6.9 billion investment Texas has made in 3,600 miles of new competitive renewable energy zone (CREZ) transmission lines, a project which was completed in December 2013.

Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 11 of 15

Figure 5: Competitive Renewable Energy Zone (CREZ) Transmission Lines



The investment in CREZ infrastructure has contributed to a more than threefold increase in wind generation as a percentage of ERCOT generation from 2007 to 2013 (3%-9.9%)⁵, yet Texas receives no credit for the growth between 2005 and 2012 because of the 2012 base year used by the EPA. Figure 6 demonstrates the significance of the CREZ project in relation to ERCOT's overall transmission system.

⁵ Potomac Economics, LTD., *2013 State of the Market Report for the ERCOT Wholesale Electricity Markets*, at 63 (September 2014). Potomac Economics LTD. is the independent market monitor for the ERCOT market.

[illegible]

Commissioner Anderson
 Written Testimony before Energy and Power Subcommittee
 September 9, 2014
 Page 13 of 15

EPA Overestimates the Generating Capacity of Texas Wind from a Reliability Standpoint

In determining the BSER for Block 3, EPA uses a capacity factor for Texas wind of between 39% and 41%.⁶ For reliability purposes, ERCOT assigns wind an 8.7% wind capacity factor which is the estimated availability of wind during summer peak. ERCOT is late in the process of recalculating the effective load-carrying capability (ELCC) of wind and is expected late next month to assign West Texas wind an ELCC of 14.2% and coastal wind and ELCC of 32.9%.⁷ Both figures are still substantially below the capacity factor the EPA assigns to Texas wind energy.

Texas Has Already Achieved Substantial Progress in Reducing Emissions

From 2000 to 2011 Texas reduced its total carbon emissions by more than any other state.⁸ The State has accomplished this result while growing its economy more than any other state (33.5%).⁹ The reductions made by Texas over those 12 years amount to 13.3% of the country's reductions. Texas has reduced its total CO₂ emissions by 65 million metric tons (and also achieved significant reductions in NO_x and SO₂ emissions), all while expanding its economy by a third. Yet it appears EPA, under its proposed Clean Power Plan rule, will require far more from Texas than it asks from other states.

⁶ United States Environmental Protection Agency, *Documentation for EPA Base Case v.5.13 Using the Integrated Planning Model*, Table 4-21, at 4-46, referencing The United States Department of Energy's National Renewable Energy Laboratory (NREL) capacity factors for different wind classes. For wind class in Texas, refer to NREL's United States Wind Resource Map (50m), <http://www.nrel.gov/gis/pdfs/windmodel4pub1-1-9base200904enh.pdf> (May 6, 2009). From the map, wind power class in Texas, is shown as either wind power class 3 or 4.

⁷ ERCOT Nodal Protocol Revision Request 611, Scheduled for ERCOT Board of Directors vote October 13, 2014. ERCOT expects to be using two capacity factors for Texas wind.

⁸ U.S. Energy Information Administration, *State-Level Energy-Related Carbon Dioxide Emissions, 2000 – 2011*, (August 2014) at 6. See Table 1. State energy-related carbon dioxide emissions by year (2000-2011), which show a 64.8 million metric ton reduction. This is total carbon reduction, not limited to sectors.

⁹ Federal Reserve Bank of St. Louis, *Real Total Gross Domestic Product By State For Texas*, plotted from 1997 until 2013, <http://research.stlouisfed.org/fred2/series/TXRGSP>

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 14 of 15

The EPA's Proposed Clean Power Plan Timelines Are Problematic

The Comment Deadline

There are several timelines under the EPA's proposed Clean Power Plan that are a problem or raise questions. The first is the comment deadline. Mid-October is not sufficient time to evaluate the intricacies of the over six hundred page proposal, particularly when considering the wide scope of the proposed Clean Power Plan rule. Effectively, the EPA is proposing to restructure the nation's electric system, which has slowly evolved over a century. This is a dramatic and unprecedented undertaking which requires considerable thought and analysis. It is likely that Texas will ask for more time to file comments.

The Intermediate Goal Deadline of 2020

The second issue is the timeline for intermediate goal achievement. The intermediate 2020 target is an unrealistic timeline given the time it will take to plan a Texas SIP, much less implement it. In Texas, the legislature meets every two years, in odd numbered years. The earliest the proposed rule could possibly go into effect would be sometime next summer, and at that point the 2015 legislative session is over. Consequently the next time the Texas legislature would convene is January 2017. If the BSER "building blocks" remain in a final rule as proposed, it will require legislation, before a Texas SIP could be filed with the EPA. While the ERCOT market would likely continue to make the market driven reductions in CO₂, new generation or even fuel conversions of existing generating units have to be carefully scheduled in order to maintain grid reliability, whether in ERCOT, or the other RTO/ISOs. If new transmission upgrades are required, even in ERCOT (where transmission can be built faster than elsewhere in the country) it will still require 4-7 years of planning, siting and construction to accomplish.

Commissioner Anderson
Written Testimony before Energy and Power Subcommittee
September 9, 2014
Page 15 of 15

Conclusion

I would like to thank the members of the Energy and Power Subcommittee of the House Committee on Energy and Commerce for the opportunity to appear before them today. Devoting time and effort discussing questions raised by the EPA's proposed Clean Power Plan is an exceptionally important undertaking. EPA's proposed rule, if adopted, is likely to have a dramatic effect on electric reliability, the economy and the environment in Texas, all other states, and the nation. The rule must be thoughtfully and carefully considered before its implementation.

Mr. WHITFIELD. So our next witness is Mr. Tom Easterly, who is the commissioner for the Indiana Department of Environmental management, and Mr. Easterly, thank you very much for being with us, and we look forward to your testimony, and you are recognized for 5 minutes.

STATEMENT OF TOM W. EASTERLY

Mr. EASTERLY. Thank you, Chairman Whitfield and Ranking Member Rush, sort of, and members of the committee.

Good morning. My name is Thomas Easterly. I am the commissioner of the Indiana Department of Environmental Management, also known as IDEM, and I also bring you greetings from Governor Pence of Indiana, and I appreciate the opportunity to share with you Indiana's current perspective on the Environmental Protection Agency's proposed 111(d) regulations for fossil fueled electric generation units.

Indiana will be significantly impacted by EPA's proposed 111(d) regulations because we are the most manufacturing intensive state, that means manufacturing as a percent of our GDP, and more than 80 percent of our electricity is currently produced by coal. We have a 300-year supply of that coal in our state. 28,000 Hoosiers are employed in the coal industry, and as Governor Pence has frequently stated, Hoosiers know that coal means jobs and coal means low-cost energy.

We recognize that we need all forms of energy to power our economy and the Pence administration is working toward an updated energy plan for the state that will continue to foster greater use of renewables and other energy sources, but at the same time we know that coal is crucial for Hoosier energy resources and should continue to be promoted.

My mission at IDEM is to protect Hoosiers in our environment. In examining how the proposed 111(d) regulations further our mission, I have come to the conclusion that this proposal will cause significant harm to Hoosiers and actually to most residents of the U.S. without providing any measurable offsetting benefits.

For these reasons, I requested that EPA withdraw this proposal. Instead, EPA and the Obama Administration should work with states to produce an energy policy that both provides for reliable and affordable energy, as well as a healthy environment. This necessarily requires a balanced regulation that allows the use of all of our fuels in the most efficient manner.

In the long run, a program focusing on the most efficient use of all of our sources of energy, including coal, nuclear, natural gas, wind, solar, and others will promote economic prosperity by keeping energy affordable and reliable.

The most ironic impact of the proposed regulations is that they are likely to increase the worldwide greenhouse gas emissions by decreasing international competitiveness of U.S. businesses through the increased energy cost. We are very sensitive to this issue in Indiana. Competitive businesses have been investing at cost-effective energy savings activities for decades.

Under this proposal, the total cost of the products produced in the U.S. will need to increase, eroding our international competi-

tiveness and resulting in the loss of manufacturing jobs in Indiana and the Nation.

When these businesses close, our U.S. emissions will decrease but worldwide greenhouse gas emissions will increase as our businesses move to areas with less efficient and more carbon intensive energy supplies.

In addition, U.S. EPA predicts that this proposal will increase the cost of natural gas and the per kilowatt hour cost of residential electricity by around 10 percent in the next 6 years. In Indiana, our state utility forecasting group has already predicted a 30 percent increase in Indiana electrical cost from other recent EPA regulations, not including this one, and that group is presently studying the expected impact of this rule on top of the other ones on our energy rates, but it will no doubt find that our rates will increase.

Increases in energy costs hit the poor, elderly, and most vulnerable in our society first. I worked for a utility and every year, unfortunately, people died because they lost their electricity and they did not get it reconnected and they could not survive. At a time when Indiana is doing all that it can to grow its economy and create jobs, the EPA's proposal creates a very real possibility that increased energy costs will slow our economic progress and raise people's utility bills.

In Indiana, we are obviously concerned about the economic impact of EPA's proposed rules on businesses and consumers, but we also have more technical questions. We want to make sure that the rule does not result in unintended consequences such as reduced reliability, which would be brownouts, or worse than that, blackouts, or not having all of the necessary infrastructure in place to convert from coal to natural gas.

The fact that this misguided policy will harm Hoosiers and other people in our country while actually increasing the worldwide level of the very emissions it is designed to decrease, compels Governor Pence and me to oppose the proposed regulations.

Thank you for the opportunity to share our views, and welcome your question.

Mr. WHITFIELD. Thank you very much, Commissioner Easterly.
[The prepared statement of Mr. Easterly follows:]

Testimony of Thomas Easterly
Commissioner, Indiana Department of Environmental Management
to the
U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy and Power

“State Perspectives: Questions Concerning
EPA’s Proposed Clean Power Plan”
September 9, 2014

Washington, DC

Chairman Whitfield, Ranking Member Rush and Members of the Committee, good morning, my name is Thomas Easterly. I am the Commissioner of the Indiana Department of Environmental Management, also known as IDEM. I also bring you greetings from Governor Pence of Indiana, and I appreciate the opportunity to share with you Indiana’s current perspective on the Environmental Protection Agency’s proposed 111(d) regulations for fossil fueled Electrical Generation Units.

Indiana will be significantly impacted by EPA’s proposed 111(d) regulations because we are the most manufacturing intensive state in the U.S. More than 80% of Indiana’s electricity is currently produced by coal, and we have a 300 year supply of coal in our State. 28,000 Hoosiers are employed in the coal industry, and as Governor Pence has frequently stated, “Hoosiers know that coal means jobs and coal means low-cost energy.” We recognize that we need all forms of energy to power our economy, and the Pence Administration is working towards an updated energy plan for the state that will continue to foster greater use of renewable and other energy sources. But at the same

time we know that coal is a crucial Hoosier energy resource that should continue to be promoted.

IDEM's mission is to protect Hoosiers and our environment. In examining how the proposed 111(d) regulations further our mission, I have come to the conclusion that this proposal will cause significant harm to Hoosiers (and most residents of the U.S.), without providing any measurable offsetting benefits. For these reasons, I request that U.S. EPA withdraw this proposal. Instead, EPA and the Obama Administration should work with states to produce an energy policy that both provides for reliable and affordable energy as well as a healthy environment. This necessarily requires a balanced regulation that allows the use of all of our fuels in the most efficient manner. In the long run, a program focusing on the most efficient use of all of our sources of energy, including coal, nuclear, natural gas, wind, solar and others will promote economic prosperity by keeping energy affordable and reliable.

The most ironic impact of the proposed regulations is that they are likely to increase worldwide greenhouse gas emissions by decreasing the international competitiveness of U.S. businesses due to increased energy costs. Competitive businesses have been investing in cost effective energy savings activities for decades. Under this proposal the total cost of the products produced in the U.S. will need to increase eroding our international competitiveness and resulting in the loss of manufacturing jobs in Indiana and across the nation. When these businesses close, U.S. emissions will decrease, but worldwide greenhouse gas emissions will increase as our businesses move to areas with less efficient and more carbon intensive energy supplies.

In addition, U.S. EPA predicts that this proposal will increase the cost of natural gas and the per KWHr cost of residential electricity by around 10% in the next 6 years. The State Utility Forecasting Group (SUFGE) in Indiana has already predicted a 30% increase in Indiana electrical costs from other recent U.S. EPA regulations, and the SUFG is presently studying the expected impact of this proposed regulation on energy rates, but it will no doubt find that rates will increase.

Increases in energy costs hit the poor, elderly and most vulnerable in our society first. At a time when Indiana is doing all that it can to grow its economy and create jobs, the EPA's proposal creates the very real possibility that increased energy costs will slow our economic progress and raise people's utility bills.

In Indiana we are obviously concerned about the economic impact of the EPA's proposed rules on businesses and consumers, but we also have more technical questions. We want to make sure the rule does not result in unintended consequences such as reduced reliability (brownouts) or not yet having all of the necessary infrastructure in place to convert from coal to natural gas.

The fact that this misguided policy will harm Hoosiers and other people in our country while actually increasing the worldwide level of the very emissions it is designed to decrease compels Governor Pence and me to oppose the proposed regulations. I thank you for the opportunity to share our views and welcome your questions.

Mr. WHITFIELD. And Mr. Darwin, before I call on you, Mr. Waxman has arrived, and he has another commitment as well, so at this time I am going to introduce him, recognize him for his 5-minute opening statement.

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

I apologize to interrupt the flow of the witnesses, but I was delayed at another hearing on the Senate side, and now I have to go to another hearing of our committee on the House side.

In June, Administrator McCarthy issued a tremendously important proposal to limit carbon pollution from power plants, and we are going to hear today and are already hearing from some of the state officials who will be responsible for developing and implementing the state plans to control this pollution. Climate change is not a simple problem, but there are some basic facts that we have to keep in mind to help us how to figure to move forward.

One, climate change from carbon pollution is real. It is harming us now. It is going to get worse. How much worse depends on us. Two, controlling carbon pollution is not without costs, but the benefits of action far outweigh those costs. I think America would be better off if we cut our carbon pollution. Three, there is no single action that will fix the problem. We have to tackle it on multiple fronts. Even within the power sector there are many different ways to meet our energy needs with far less carbon pollution.

Every day Americans are dealing with the impacts of climate change from carbon pollution, and you need look no further than the state of California. Last year was the driest year that California has ever seen. The current drought threatens water supplies for drinking water and irrigation of valuable crops. Wild fires because of the hotter and drier climate, more frequent and more intense. In the midwest, toxic algae blooms are threatening our drinking water. All along the eastern Gulf Coast, climate change is fueling more extreme weather and dangerous storms, and climate-driven sea level rises threatening extensive coastal infrastructure.

These are just a few of the growing costs of carbon pollution. We know we must act, and EPA's Clean Power Plan tackles the largest single source of carbon pollution in America today. Substantially cutting carbon pollution from these uncontrolled power plants isn't all we have to do to fight climate change, but it is absolutely critical.

Cutting carbon pollution from power plants is also a good investment. Unchecked climate change will be hugely expensive. But there are a lot of low cost measures we can take right now. I look forward to hearing from Washington and Maryland representatives today, two states that have already cut their power plant carbon pollution. They found, through actual experience in renewable energy that they have had a big economic benefit for their states. EPA's analysis supporting the Clean Power Plan show that the benefits of the proposal far outweigh the cost by at least 6 to 1 and possibly by as much as 12 to 1.

We know there is no silver bullet for cutting carbon pollution. Many types of action will be needed. EPA's Clean Power Plan recognizes this fact as well. It establishes the goal and leaves it to the

states and affected industries to figure out how to get there in all the ways that work best for their particular circumstances.

I will close with one final point. Just saying no isn't an option here. We must cut carbon pollution, and we can do so cost effectively. Those who have concerns with EPA's Clean Power Plan have the responsibility not just to critique but to propose alternative ways to achieve the goal. If you don't like the Clean Power Plan, what is your plan? We have a profound moral responsibility to leave our children and grandchildren an inhabitable planet, and the Clean Power Plan is a critical step to protect their future.

Thank you, Mr. Chairman. Yield back the balance of my time, and my apologies to the witnesses. I will try to get back here later, but I am probably going to be required in the other committee for the balance of the time, but I will try to be back and forth. I have suggested cloning but nobody likes the idea of having two of me. One is enough. Thank you, Mr. Chairman.

Mr. SHIMKUS. I second that.

Mr. WHITFIELD. We will miss you, Mr. Waxman.

Mr. WAXMAN. I will come back.

Mr. WHITFIELD. At this time, I would like to recognize Mr. Henry Darwin, who is the director of the Arizona department of environmental quality. Thank you for being with us, and you are recognized for 5 minutes.

STATEMENT OF HENRY R. DARWIN

Mr. DARWIN. Mr. Chairman, members of the committee, I greatly appreciate the opportunity to offer testimony today.

I must first caveat my remarks by saying that as an environmental lawyer with almost 20 years experience, I do not believe the Clean Air Act provides EPA with the authority to regulate greenhouse gasses as it proposes to do in this Clean Power Plan. With that said, I believe it is in the best interest of Arizona to work with EPA to develop a final rule that results in energy reliability, achievable goals, and adequate flexibility.

The 6th largest state in the country, Arizona encompasses some of most geologically diverse regions in the Nation, from our desert floors to high plateaus, to pine forested mountainous regions. As one might expect, these differences result in diverse climates that have quite different energy demands. For example, the mountainous regions of our state often experience sub-zero temperatures in the winter; whereas, the summertime highs at the desert floors have been known to reach temperatures of 120 degrees.

As you can imagine, electricity plays a crucial role in the protection of public health in Arizona, whether it be through heating and cooling or the delivery of Colorado river water to the central portions of our state. About 5 million people representing 80 percent of Arizona's population live in the desert lowlands. During the hot summer months, electricity consumption peaks as needs for cooling residences, schools, hospitals, and other work places increase.

The Central Arizona Project is a 336-mile long system of aqueducts, tunnels, pumps, and pipelines that deliver Arizona's share of the Colorado River to central Arizona, including Phoenix and Tucson. It is both the single largest resource of renewable water sup-

plies in Arizona and the largest consumer of power from the Navajo generating station located on tribal land.

When our energy production is not sufficient during peak use, Arizona will also import electricity from out of state to meet energy demands. In its proposed Clean Power Plan, EPA uses a nationwide set of assumptions to develop two emissions reduction goals for each state, an interim goal that is to be achieved between 2020 and 2029, and a final goal reached by 2030.

In the supporting documentation, EPA maintains that each state's goals will preserve grid reliability and achievability without great difficulty through flexible compliance options that the rules offer.

Despite EPA's efforts, the Clean Power Plan still presents three challenges for Arizona. Compared to baseline levels in 2012, Arizona must achieve almost 52 percent reduction in emissions intensity by 2030. This is the second most stringent reduction target in the country.

To comply with the interim goal by 2020, more than 75 percent of Arizona's total reductions must occur by 2020. The energy needed to deliver Colorado River water to central Arizona is generated on the Navajo reservation where there is currently no proposed rule or goals.

One of my department's stated goals is to support environmentally responsible economic growth. In our experience, this is best achieved through collaboration. We believe that building partnerships with those who have diverse perspectives is the key to finding creative solutions. We believe that we can work with EPA to adjust the program so that Arizona can overcome its challenges and make significant emission reduction contributions without sacrificing Arizona's economic wellbeing.

To that end, we have chosen a path different from other states. Where some are chosen to immediately issue legal challenges to EPA's proposal, Arizona is acting to collaborate with those stakeholders in Arizona who will be most impacted by the rule, our governor's energy office, the state public utility commission, and EPA to find an outcome that is workable for the state's current future energy needs.

EPA's proposed goals for Arizona were based upon an assumption that all out of our existing coal power generation could be immediately transferred to existing natural gas power plants by 2020. Many of these existing natural gas power plants are only used in the summer during peak energy demand and remain idle during winter months when energy demand is low. Arizona has already reached out to EPA to explain how energy flows into and out of Arizona, and that is most appropriate to consider peak demand when determining when an existing facility is truly under-utilized. After all, electricity generated at a facility in the winter cannot offset the need for electricity during peak demands experienced in the middle of the summer.

By our calculations, switching from coal to natural gas by 2020 is the only building block available to Arizona for meeting EPA's proposed goals. As we explained to EPA, this implementation issue is at odds with their stated intent that states be provided flexibility amongst the building blocks in achieving the goals.

Furthermore, committing to achieve over 75 percent of the second most stringent final goal by—in the Nation by 2020 would be putting Arizona’s energy reliability and public health at risk, which EPA also clearly does not intend by its proposed rule.

To their credit, EPA has listened to our concerns and has suggested appropriate data-driven analyses could result in adjustments to the Clean Power Plan. On August 22nd, we provided EPA with a technical demonstration that EPA’s goals do not provide sufficient flexibility. My staff has informed me that EPA is looking at the data and is planning to discuss the problem later this week. It is also my understanding that EPA will soon propose a rule for power plants located on tribal land.

Because our energy needs are so intertwined, Arizona and the Navajo Nation have a great interest in working together to develop a multi-jurisdictional plan that will work for both areas. We look forward to their proposal.

In the end, should EPA choose not to make adjustments to the final rule based upon our real implementation concerns, litigation remains an option for Arizona. In the meantime, we are hopeful that through collaboration, EPA and Arizona can develop a solution that is environmental responsible, economically sustainable, and provides energy reliability so that we can prevent expensive and time-consuming legal challenges.

Thank you for this opportunity to provide testimony. I am happy to answer questions you might have.

Mr. WHITFIELD. Thanks, Mr. Darwin, very much.

[The prepared statement of Mr. Darwin follows:]

Testimony
Subcommittee on Energy and Power
House Committee on Energy and Commerce
Tuesday, September 9, 2014
by
Henry R. Darwin, Director
Arizona Department of Environmental Quality

Mr. Chairman, members of the Committee. My name is Henry Darwin. I am the Director of the Arizona Department of Environmental Quality and I greatly appreciate the opportunity to offer testimony today.

I must first caveat my remarks by saying that as an environmental lawyer with almost 20 years of experience, I do not believe the Clean Air Act provides EPA with the authority to regulate greenhouse gases as it proposes to do so in its Clean Power Rule. With that said, I believe it is in the best interest of Arizona to work with EPA to develop a final rule that results in energy reliability, achievable goals, and adequate flexibility.

The sixth largest state in the country, Arizona encompasses some of the most geologically diverse regions in the nation, from our desert floors to high plateaus, to pine forested mountainous regions. As one might expect, these differences result in diverse climates that have quite different energy demands. For example, the mountainous regions of our state often experience sub-zero temperatures in the winter, whereas the summertime highs at the desert floors have been known to reach temperatures in excess of 120 degrees.

As you can imagine, electricity plays a crucial role in the protection of public health in Arizona, whether it be through heating and cooling, or the delivery of Colorado River water to the central portions of the state. About five million people, representing 80 percent of Arizona's population, live in the desert lowlands. During the hot summer months, electricity consumption peaks as the need for cooling residences, schools, hospitals, and other work places increases. The Central Arizona Project is a 336-mile long system of aqueducts, tunnels, pumps, and pipelines that delivers Arizona's share of the Colorado River to central Arizona, including Phoenix and Tucson. It is the both the single largest resource of renewable water supplies in Arizona, and the largest consumer of power from the Navajo Generating Station, located on tribal land. When our energy production is not sufficient during peak use, Arizona will also import electricity from out-of-state to meet energy demands.

In its proposed Clean Power Plan, EPA uses a nation-wide set of assumptions to develop two emissions reduction goals for each state – an interim goal that is to be achieved between 2020 and 2029, and a final goal to be achieved by 2030. In its supporting documentation, EPA maintains that each state's goals will preserve grid reliability and be achievable without great difficulty through flexible compliance options that the rules offer.

Despite EPA's efforts, the Clean Power Plan still presents three key challenges for Arizona:

(1) When compared to baseline levels in 2012, Arizona must achieve almost a 52 percent reduction in emissions intensity by 2030; this is the second most stringent reduction target in the country.

(2) To comply with the interim goal by 2020, more than 75 percent of Arizona's total reductions must occur by 2020.

(3) The energy needed to deliver Colorado River water to central Arizona is generated on the Navajo Reservation where there is currently no proposed rule or goals.

One of my department's stated goals is to support environmentally responsible economic growth. In our experience, this is best achieved through collaboration. We believe that building partnerships with those who have diverse perspectives is the key to finding creative solutions. We believe that we can work with EPA to adjust the program so that Arizona can overcome its challenges and make significant emission reduction contributions without sacrificing Arizona's economic well-being. To that end, we have chosen a path different from other states. Where some have chosen to immediately issue legal challenges to EPA's proposal, Arizona is acting to collaborate with those stakeholders in Arizona who will be impacted by the rule, our governor's Energy Office, the state's public utility commission and EPA to find an outcome that is workable for the state's current and future energy needs.

EPA's proposed goals for Arizona were set based upon an EPA assumption that all of our existing coal-fired power generation could be immediately transferred to existing natural gas-fired power plants by 2020. Many of these existing natural gas-fired power plants are only used in the summer during peak energy demand and remain idle during the winter months when demand is low. Arizona has already reached out to EPA to explain how energy flows into and out of Arizona, and that it is most appropriate to consider peak demand when determining whether an existing facility is truly under-utilized. After all, electricity generated at a facility in the winter cannot offset the need for electricity during the peak demands experienced in the middle of the summer.

By our calculations, switching from coal to natural gas by 2020 is the only "building block" available to Arizona for meeting EPA's proposed goal. As we have explained to EPA, this implementation issue is at odds with their stated intent that States be provided flexibility amongst the building blocks in achieving the goals. Furthermore, committing to achieve over 75 percent of the second most stringent, final goal in the nation by 2020 would be putting Arizona's energy reliability and public health at risk, which EPA also clearly does not intend by its proposed rule.

To their credit, EPA has listened to our concerns and has suggested that appropriate data-driven analyses could result in adjustments to the Clean Power Plan. On August 22 we provided EPA with a technical demonstration that Arizona's goals do not provide sufficient flexibility. My staff has informed me that EPA is looking through the data and is planning to discuss the problem later this week.

It is also my understanding that EPA will soon propose a rule for power plants located on tribal land. Because our energy needs are so intertwined, Arizona and the Navajo Nation have a great interest in working together to develop a multi-jurisdictional plan that will work for both areas. We look forward to their proposal.

In the end, should EPA choose not to make adjustments to the final rule based upon our real world implementation concerns, litigation remains an option for Arizona. In the meantime, we are hopeful that through collaboration, EPA and Arizona can develop a solution that is environmentally responsible, economically sustainable, and provides energy reliability so that we can prevent expensive and time-consuming legal challenges.

Thank you for this opportunity to provide testimony, and I am happy to answer any questions you might have.

Mr. WHITFIELD. And at this time I would like to recognize Kelly Speakes-Backman who is a commissioner with the Maryland Public Service Commission.

Thank you very much for being with us today, and we look forward to your testimony.

You are recognized for 5 minutes.

STATEMENT OF KELLY SPEAKES-BACKMAN

Ms. SPEAKES-BACKMAN. Thank you, sir, I will start my own stopwatch, so I can be sure—

Mr. WHITFIELD. Be sure and turn your microphone on now.

Ms. SPEAKES-BACKMAN. I think it is on now. Thank you.

Well, thank you Chairman Whitfield and other members of the committee for this opportunity to provide comments today on EPA's proposed Clean Power Plan.

I am speaking today in the context of my role as the commissioner of the Maryland Public Service Commission and also one of nine states that participates in the regional greenhouse gas initiative.

Maryland welcomes the release of the Clean Power Plan which seeks to reduce carbon dioxide emissions from power plants under section 111(d) of the Clean Air Act. If there is one message I can leave with you today it is that it is possible to achieve pollution reductions while supporting economic goals. These two objectives are not mutually exclusive.

RGGI states have been collaboratively operating market mechanisms for 6 years which has supported the reduction of carbon pollution and maintained grid reliability with a positive impact to rate payers and overall our economies. Our perspective is that EPA's proposed plan presents an opportunity to take an important step in the development of an advanced energy infrastructure that delivers cleaner air, smarter energy use, and local jobs.

EPA conducted an unprecedented amount of outreach to states and other key stakeholders during the development of this proposed rule. As a result, the proposal recognizes the diversity of initiatives and programs that states are already pursuing to reduce carbon pollution and increase the efficiencies of both energy use and production.

EPA has also recognized the importance of grid greater reliability which is a priority and legal obligation for my states and for my fellow colleagues up here on this table today, and for all other states for this matter. In our view, EPA has constructed a proposed rule which provides the flexibility for states to devise plans which suit state-specific reliability requirements and resources.

This proposed rule also provides the ability for states to work together as regions which more closely aligns to the nature of our electricity grid.

But perhaps most important in regards to reliability is the gradual transition that is presented in this plan. The interim compliance goals start in 2020, and the compliance with each state rate is not mandated until 2030. That gives us 16 years in a long term compliance timeframe to allow markets to adjust to the known and

measurable forthcoming requirements which serves to minimize potential reliability impacts.

Our nine states represent 16 percent of the U.S. economy and comprise a total gross domestic product of 2.4 trillion U.S. dollars. Since 2005, we have experienced a 40 percent reduction specific to power sector carbon dioxide pollution even as our regional economy has grown by 7 percent.

Of course, these significant reductions are due to a combination of factors, including market forces such as the increasing abundance of natural gas in our region and the overall economy, the RGGI programs and other state policies and programs that we have put in place. We held our 25th auction last week, and with this latest auction, each state will reinvest its share of \$87.8 million in revenues in accordance with our own state-specific energy programs.

Through 2013, RGGI states have invested more than \$950 million in proceeds and energy efficiency clean and renewable energy, energy programs that have helped low income consumers, and in Maryland, we have invested more than \$230 million of that through last year.

As to the Clean Power Plan, EPA has allowed groups of states to implement a regional emission budget using the most cost-effective measures available, and these cost-effective measures are available to a larger geographical boundary than just our individual state. That will allow also for potential emission increases in some specific locations that are required, that have more energy efficiency resources available.

Even as we formulate our comments for October, Maryland is still reviewing and analyzing the plan. We think the basic structure of this rule is sound. We will have many technical suggestions and questions for EPA on the proposed rate methodology, the translation of rate targets to a single regional mass target, and rule enforceability. These comments will basically be posed in three general areas.

First, is the plan designed to recognize states for early action whether through energy efficiency programs, renewable energy programs, or other strategic energy initiatives?

Second, the RGGI experience demonstrates that cost-effective reductions are possible even beyond what is proposed by the EPA. We will explore those questions and find out and ask questions that ask certainly are there more opportunities for even greater reductions in a cost-effective manner.

And third, does the plan provide for transparent, verifiable, equitable, and enforceable emissions reduction carbon target for all states?

We look forward to working with EPA on these, and other states on these questions. We think the proposed plan is workable, and we think the EPA should be commended for developing a proposed rule that recognizes the diversity among states, provides a flexible approach to compliance, and considers the sometimes competing but not necessarily exclusive objectives of reliability, affordability, environmental soundness, and economic growth. Thank you.

Mr. WHITFIELD. Thank you very much.

[The prepared statement of Ms. Speakes-Backman follows:]

House Committee on Energy and Commerce

Testimony on Questions Concerning EPA's Proposed Clean Power Plan

**Kelly Speakes-Backman
Commissioner
Maryland Public Service Commission**

September 9, 2014

Summary of Remarks:

- It is possible to achieve pollution reductions while supporting economic goals.
- The Regional Greenhouse Gas Initiative (RGGI) states have demonstrated the successful reduction of carbon pollution, while maintaining grid reliability and having a positive impact on ratepayers and our overall economies.
- By 2013, Maryland invested more than \$230 million of RGGI revenues in consumer benefits, directed toward energy efficiency projects and customer energy direct bill assistance.
- The basic structure of EPA's proposed rule is sound.
- EPA's proposed rule recognizes the importance of grid reliability.
- EPA's proposed rule offers the flexibility that state utility regulators requested.
- RGGI states and Maryland still have questions as to the specifics of the rules, which will be reflected in our comments to be submitted October 16, 2014.

Remarks:

Thank you Chairman Whitfield, Vice Chairman Scalise, Ranking Member Rush and other members of the Energy and Power Subcommittee of the Energy and Commerce Committee for the opportunity to provide comments on EPA's proposed Clean Power Plan. My name is Kelly Speakes-Backman and I am a Commissioner of the Maryland Public Service Commission. My state is also one of nine that participates in the Regional Greenhouse Gas Initiative (RGGI). RGGI is a flexible, cost-effective program that reduces carbon emissions from the power sector. I serve as the Chair of RGGI, Inc. and Co Vice-Chair of the Energy Resources and Environment Committee of the National Association of Regulatory Utility Commissioners (NARUC).

Maryland welcomes the release of the Clean Power Plan, which seeks to reduce carbon dioxide (CO₂) emissions from power plants under section 111(d) of the Clean Air Act. If I can convey one message today—it would be that *it is possible* to achieve pollution reductions while supporting economic goals. These two objectives are not mutually exclusive. RGGI states have been collaboratively operating a market mechanism for six years, which has supported the reduction of carbon pollution and maintained grid reliability, with a positive impact to ratepayers and our overall economies.

Maryland's in-state generation is predominately coal [See Graph 1 in Appendix]. As a part of RGGI and coupled with state energy initiatives, we have diversified our fuel mix and reduced our carbon footprint. Since 2005 our generation from renewables, nuclear energy, and natural gas as a percentage of our total generation mix has increased from 36 percent to 55 percent, while our generation from coal has decreased from 56 percent to 44 percent.

EPA's proposed Clean Power Plan is an important step towards the development of an advanced energy infrastructure that delivers cleaner air, smarter energy use, and local jobs. EPA conducted an unprecedented amount of outreach to states and other key stakeholders during the development of this proposed rule. The number of conversations they had is impressive, and one result of this outreach is a proposed plan that recognizes the diversity of initiatives and programs that states are currently pursuing to reduce carbon pollution and increase the efficiencies of energy use and production.

EPA has also presented a proposed rule that recognizes the importance of grid reliability— a priority and a legal obligation for my state, and for all other states for that matter. In our view, EPA has constructed a proposed rule which provides the flexibility for states to devise a plan which best suits state-specific reliability requirements and resources. This proposed rule also provides the ability for states to work together as regions, which more closely aligns to the nature of our electricity grid, to address potential reliability concerns. We were pleased to note that EPA explicitly recognized the RGGI program as an acceptable compliance mechanism. Perhaps most important in regards to reliability is the gradual transition presented in the Clean Power Plan. The interim compliance goals start six years from now in 2020, and compliance with each state rate is not mandated until 2030. This long term compliance time frame allows time for markets to adjust to the known and measurable forthcoming requirements minimizing potential reliability impacts.

The multi-state Regional Greenhouse Gas Initiative includes nine states of the Northeast and Mid-Atlantic region. Maryland joined by Connecticut, Delaware, Maine, Massachusetts, New

Hampshire, New York, Rhode Island, and Vermont are already implementing a mandatory regional mass-based carbon pollution reduction program—the first in the nation. Collectively our nine states represent 16 percent of the U.S. economy and comprise a total gross domestic product of 2.4 trillion U.S. dollars. We work together to effectively create a unified market for auctioning and trading carbon allowances, minimizing costs while achieving environmental goals. The experience of my state and my fellow RGGI states is that you can cost-effectively realize environmental and economic goals while maintaining electricity grid reliability.

The RGGI states have experienced a 40 percent reduction in power sector carbon dioxide pollution since 2005 as our regional economy has grown by 7 percent (adjusted for inflation)[See Graph 2 in Appendix]. Of course, these significant pollution reductions are due to a combination of factors including market forces such as the recent increasing abundance of natural gas and the overall economy; the RGGI program which reinvests market revenues into strategic energy initiatives for each state; and other state policies and programs.

The RGGI states have enjoyed a fully operational carbon market for six years. We held our 25th auction last week, completed our first compliance period in 2011 and are preparing for the completion of our second compliance period in 2014. The RGGI program caps emissions by determining a regional budget of CO₂ allowances (essentially a permit to emit a ton of carbon pollution). The RGGI states distribute a majority of the CO₂ allowances through regional auctions — allowing states to capture the value of the allowances for reinvestment in strategic energy programs. Through 2013 the RGGI states have invested more than \$950 million in RGGI proceeds in energy efficiency, clean and renewable energy, and other strategic energy

programs. In Maryland, we have invested more than \$230 million through last year, with 84 percent of these investments directed toward energy efficiency projects and customer energy direct bill assistance. The reinvestment of auction proceeds in consumer benefit programs has helped more than 104,000 low-income Maryland families pay their energy bills, supported energy efficiency upgrades at 4,320 low-income apartments, and helped 3,100 families and 106 businesses in Maryland install solar, wind, and geothermal systems.

Maryland has not set an objective to reduce carbon pollution at any cost. Our participation in RGGI, coupled with other clean energy programs, has economically benefited our region as well. An independent analysis by the Analysis Group on the economic impacts of RGGI concluded that investments from RGGI first three years alone are adding \$1.6 billion net economic value to our region [See Note 1 in Appendix]. These investments are saving customers over \$1 billion on their energy bills and adding 16,000 job-years. In 2014 the RGGI states implemented a series of program improvements. Over time, these changes are projected to add an additional \$8 billion in gross regional product.

By recognizing mass-based regional approaches, like RGGI, in the proposed Clean Power Plan, EPA is allowing states to work within the existing regional nature of the electricity grid. Groups of states can implement a regional emission budget that reduces overall emissions across a region using the most cost-effective measures available to a larger geographical boundary, and allow for potential emission increases in some specific locations where more efficient energy resources are available. Again this structure helps maximize emissions reductions at the lowest possible cost.

RGGI also provides a simple, transparent, and verifiable system for compliance. CO₂ emissions are limited by the allowances that are distributed, ensuring that the projected emission reductions will be achieved, including reductions attributable to energy efficiency and renewable energy.

Other organizations have recognized the effectiveness of market-based emission reduction programs. The *RGGI EPA Rules Collaborative*, with the participation of several utilities including National Grid, Calpine, NextEra, Exelon, Consolidated Edison and New York Power Authority as well as environmental organizations, also recommended that EPA recognize RGGI as a compliance mechanism in the Clean Power Plan [See Note 2 in Appendix]. Their support demonstrates that stakeholders of varying interests support cost-effective, regional market-based approaches that can help states reduce carbon pollution and generate economic benefits.

Even as we formulate our comments, Maryland is still reviewing and analyzing the Clean Power Plan. Thus far, we have found that the basic structure of the rule is sound, but there are some questions that EPA will need to address in its final rule. My state and others will have many technical suggestions and questions for EPA on the proposed rate methodology, translation of rate targets to a single, regional mass target and rule enforceability. Essentially, the RGGI states expect to pose three thematic questions for consideration by EPA in our comments. *First*, is the Clean Power Plan designed in way that recognizes states for early action taken to reduce carbon pollution from the power sector, whether through energy efficiency programs, renewable energy programs, or other strategic energy initiatives? *Second*, the RGGI experience

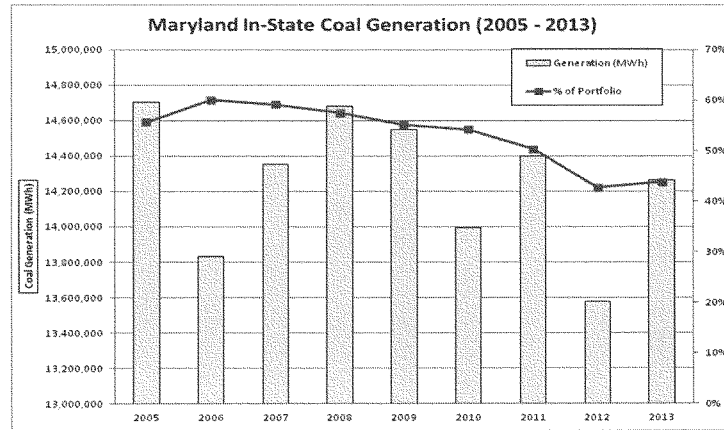
demonstrates that cost-effective reductions are possible even beyond what is proposed by EPA. Are there more opportunities or strategies available that would allow for even greater carbon pollution reduction in a cost-effective manner? *Third*, does the Clean Power Plan provide for a transparent, verifiable, equitable and enforceable emissions reduction target for all states?

Maryland looks forward to working with EPA and our fellow states on these questions. Our experience has demonstrated that flexible carbon emissions reduction programs, coupled with other state policies, can work within the construct of established markets to prevent harmful pollution from entering the atmosphere, while also generating economic benefits. EPA should be commended for developing a proposed rule that recognizes the diversity amongst states, provides a flexible approach to compliance, and considers the sometimes competing – but not necessarily exclusive – objectives of reliability, affordability, environmental soundness and economic growth.

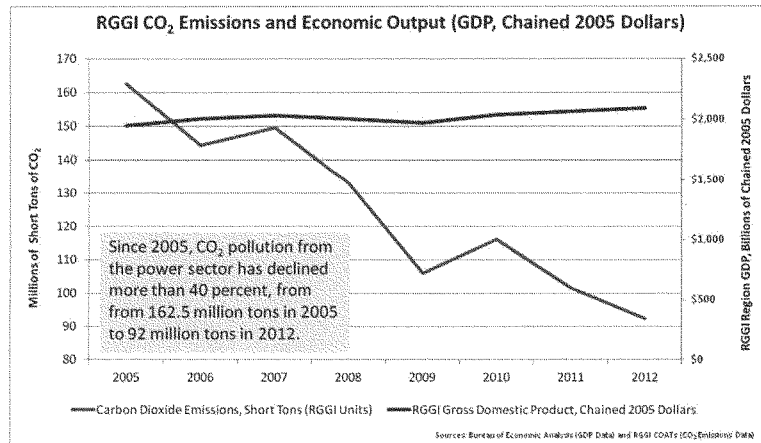
Thank you.

Appendix

Graph 1



Graph 2



Notes:

1. *The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States Review of the Use of RGGI Auction Proceeds from the First Three-Year Compliance Period*;
<http://www.analysisgroup.com/rggi.aspx>
2. *RGGI EPA Rules Collaborative Response to EPA Questions on EPA Questions on Section 111(d) Guidelines*;
<http://energy.pace.edu/sites/default/files/publications/RGGI%20EPA%20Collaborative%20Dec%205%20with%20Signatories.pdf>

Mr. WHITFIELD. At this time I recognize the Honorable David Danner who is the chairman of the Washington Utilities and Transportation Commission, and Mr. Danner, thanks for being with us. You are recognized for 5 minutes.

STATEMENT OF DAVID W. DANNER

Mr. DANNER. Thank you, Chairman Whitfield and Mr. McNernery, and members of the committee. I appreciate the opportunity to share a perspective from the Pacific Northwest on the Environmental Protection Agency's Clean Power Plan. I wanted to make three points this morning.

First, that carbon pollution is affecting Washington's environment and its economy today. We must address this pressing problem now.

Second, EPA, to its credit, has used existing law to develop a proposal that I believe creates an effective structure and workable structure for achieving significant carbon reductions in the energy sector.

Third, Washington has already taken significant steps to address carbon pollution in its own laws and policies, and based on this history, we are confident that states can achieve significant carbon reductions under EPA's approach without compromising reliability or imposing undue costs on consumers, and I would like to address each of those points in turn.

First, in Washington state, we are already seeing firsthand the effects of carbon pollution. Ocean acidification is severely affecting our shell fish industry. Pine bark beetle populations are booming and they are devastating large tracts of forest land in northeast Washington. Large forest fires have increased from an average of 6 per year in the 1970s to 21 per year in the last decade, and the cost of fighting these fires are expected to rise 50 percent higher than current expenditures by the 2020s. With increased temperatures, we can expect other impacts in the years to come. Rising sea levels, reductions in summer streams flows which affect urban water supplies, farm irrigation in summertime, hydro-power production.

Second, we have been eager for strong federal action to address carbon pollution for quite some time and now we have it. Using section 111(d) of the Clean Air Act, EPA has proposed an effective structure for achieving significant reductions in the energy sector. The key to EPA's proposed rule is the flexibility it gives to states in developing plans to reduce power plant carbon emissions. I am very concerned about the environmental consequences of carbon pollution, but as an economic and safety regulator, I must also be confident that the final rule does not compromise electric system reliability or impose undue costs on consumers.

EPA undertook considerable outreach to the states, and it is clear to me they listened to, heard, and understood the concerns of regulators about reliability and cost. Moreover, keep in mind that at this point EPA has given us a proposal, not a finished product, and they have requested that states and other stakeholders give this proposal a hard look and provide comments and recommendations.

My agency is in the process of reviewing those proposed rules, consulting with our regulated utilities, and other stakeholders to ensure that we can achieve emissions reductions EPA has proposed, and at this point, we are cautiously that we—excuse me. We are consciously optimistic that we can.

Third, we can do this without hurting the economy. I have heard the arguments of reducing carbon pollutions would adversely affect the Nation's economy, but our experience in Washington is different. Washington has already taken action in its own laws.

In 2011, then Governor Christine Gregoire signed legislation to put in effect an agreement under which TransAlta Corporation can close its 1,300-megawatt Centralia coal plant by 2025. This agreement allows an orderly transition over time that avoided immediate layoffs and disruption of the economy. We also, our voters, by initiative in 2006, approved a requirement that electric utilities pursue all cost-effective conservation and by 2020 meet at least 15 percent of their load with non-hydro renewable energy such as wind, solar, and geothermal.

In the last biennium, the states investor-owned utilities have saved nearly a million megawatt hours of electricity, enough to power all the residents of Tacoma, Washington for a year. And our state RPS, our Renewable Portfolio Standards, also has seen significant results. The IOUs have acquired enough clean electricity to power 183,000 homes.

So, of course, when we approved that initiative, people said, well, it is going to affect the economy. Well, here is what we see. The costs of complying with the act resulted in impacts to consumers of about 1 percent or about a little more than \$1 a month, and that is half of the lowest estimates put forward by the initiatives opponents and in return, renewable energy developers have invested more than \$8 billion in Washington, creating some 3,800 jobs. The conservation standard, too, is providing dramatic results. By definition, cost-effective conservation is less costly than any other energy resource, and conservation reduces consumers' bills.

The energy conservation standards in Washington created thousands of jobs. The Washington employment security department data for 2011 listed more than 37,000 jobs involved with increasing energy efficiency, 96 percent of those in the private sector. Based on Washington's experience, I believe the proposed rule, when finalized and implemented, will further investment nationwide in low carbon resources and energy efficiency, and this greater investment in turn will spur technological advances and further lower costs to consumers.

Washington does have a relatively small carbon footprint compared to other states, but that doesn't mean that EPA let us off easily. They assigned Washington the highest percentage reduction targets of any state, 72 percent, and we agree the proposed rule is complex. We are still taking a hard look at the numbers, but we believe the structure is sound.

EPA does not ignore the complexities in the energy sector. It has given states broad discretion in achieving the targets. It encourages states to work regionally, and Washington is ready and willing to engage with others in the northwest by identifying the best strategies for reducing carbon pollution.

Thank you for the opportunity to testify before you, and I welcome any questions.

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

[The prepared statement of Mr. Danner follows:]

**Written Testimony of David W. Danner
Chairman, Washington Utilities and Transportation Commission**

**Before the
Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives**

**Hearing on
State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan
September 9, 2014**

Chairman Whitfield, Ranking Member Rush, and members of the Committee, I am David Danner, chairman of the Washington Utilities and Transportation Commission (UTC), an independent regulatory agency charged with ensuring that Washington state's investor-owned energy utilities provide services that are affordable, reliable, and safe. Thank you for the opportunity to share my thoughts on the Environmental Protection Agency's (EPA's) proposed Clean Power Plan.

At the outset, I want to commend the administration and EPA for their leadership in confronting the problem of carbon pollution. In Washington state, we are already seeing firsthand the effects of this pollution. Ocean acidification is severely affecting our shellfish industry. Warmer winters are allowing forest and crop pests to reproduce longer and suffer less winter die-off; as a result pine bark beetle populations are booming, and these beetles are now devastating large tracts of forest land in British Columbia and Northeast Washington. Large forest fires (i.e., those burning more than 500 acres) have increased from an average of six per year in the 1970s to 21 per year in the last decade. The costs of fighting forest fires are expected to rise to \$75 million per year by the 2020s – 50 percent higher than current expenditures – and that does not

factor in other economic impacts such as lost timber value, lost recreational expenditures, human health costs, and habitat loss.

With increased temperatures, we can expect other impacts in the years to come. Rising sea levels will require relocating shore homes and businesses, and hardening our urban seawalls and shipping operations. Urban water supplies that rely on the storage of water in mountain snowpack will see less water coming into their reservoirs in late spring and early summer. These same reductions in summer stream flows will adversely affect salmon populations, farmers who rely on irrigation, and summertime hydropower production.

Clearly, carbon pollution is a pressing matter for the state of Washington, and we have been eager for strong federal action to address it. While congressional action to address carbon pollution could provide more comprehensive and direct policy, in the absence of such action it is appropriate that EPA use the tools at its disposal to address this issue. By using Section 111(d) of the Clean Air Act, EPA has developed a proposal that I believe creates an effective structure for achieving significant carbon emission reductions in the energy sector.

The key to EPA's proposed rule is the flexibility it gives to states in developing plans to reduce power plant emissions of carbon pollution. While I am concerned about the environmental consequences of carbon pollution, at the end of the day I am an economic and safety regulator, and I must be confident that the final rule does not compromise electric system reliability or impose undue costs on consumers. To its credit, EPA undertook considerable outreach to states; I personally met with EPA officials in Portland, Seattle, and Washington, D.C., and I believe they listened to, heard, and understood my concerns. That said, we must keep in mind that at this point EPA has given us a proposal, not a finished product, and has requested that we give their proposal a hard look and provide comments and recommendations. The UTC

is in the process of reviewing the proposed rules, consulting with other Washington state agencies, our regulated utilities, and other stakeholders to ensure that Washington can achieve the emissions reductions EPA has proposed, and do so without compromising system reliability or raising costs significantly. At this point, we are cautiously optimistic that we can.

Under EPA's proposal, each state was given a unique target based on a combination of four "building blocks": (1) heat rate improvements averaging 6 percent for coal-generating units; (2) re-dispatch of natural gas units of up to 70 percent; (3) increased use of renewable energy and continued use of nuclear power plants that are economically challenged, and (4) increased demand-side energy efficiency. States can use this or other approaches that work for their state to meet the standard.

Washington's electricity sector has a relatively small carbon footprint compared to other states, but that does not mean that Washington got off easily. EPA assigned Washington the highest percentage reduction target of any state, 72 percent. To achieve its target, Washington must significantly reduce the emissions from fossil-fueled power, increase its percentage of load served by non-hydro renewable energy, and increase its energy efficiency efforts to achieve 1.5 percent of annual load served by conservation. In each of these areas, we believe Washington is well-positioned and can meet its target, assuming EPA assumptions of Washington's reduction potential are accurate.

Indeed, Washington state has already taken action to address carbon pollution in its own laws and policies. In 2011, Governor Christine Gregoire signed legislation putting into effect an agreement under which TransAlta Corp. would close its 1,340-megawatt Centralia coal plant, with the first unit closing by 2021 and the second in 2025, thereby allowing an orderly transition that avoided immediate layoffs and disruption to the local economy. Washington voters in 2006

approved by initiative a requirement that its electric utilities pursue “all cost-effective conservation” and, by 2020, meet at least 15 percent of their load with non-hydro renewable energy such as wind, solar, and geothermal. During the 2012-13 biennium, the last for which the utilities have reported data, the state’s investor-owned utilities saved nearly 1 million megawatt hours of electricity – enough to power about 77,000 homes, or all the residents of Tacoma, Washington, for a year. Because investor-owned utilities serve only about half of the state’s residents and businesses, the statewide number is considerably higher. The state’s Renewable Portfolio Standard has also seen significant results. In 2012, the state’s investor-owned utilities – (again, serving about half the state) generated or acquired 2.35 million megawatt hours of clean electricity, enough to power 183,000 homes for a year.

I am aware of arguments that reducing carbon pollution will adversely impact the nation’s economy. However, in Washington state’s experience, this has not been the case. When Washington voters approved the renewable energy standards in 2006, opponents argued that passage would increase energy costs by \$185 million to \$370 million per year. Just last year, those calling for repeal of the standard claimed that the initiative is costing the average homeowner \$50 a year. However, the companies’ filings with the UTC last year told a very different story. They showed that complying with the act cost about \$35 million – an increase to the average bill of 1.2 percent, or a little more than \$1 a month. Even assuming another \$35 million for the half of Washington residents served by publicly-owned utilities, the initiative’s costs are still less than half of the lowest estimates put forward by the initiative’s opponents. Moreover, according to Renewable Northwest, a Portland-based group tracking renewable energy deployment in the region, renewable energy developers have invested more than \$8 billion in Washington, creating some 3,800 jobs. The conservation standard, too, is having

dramatic positive results. By definition, cost-effective conservation is less costly than any other energy resource, and conservation reduces consumers' monthly bills. At the same time, implementation of this standard has created thousands of jobs. Washington Employment Security Department data for 2011 listed 37,449 jobs involved with "increasing energy efficiency," 96 percent of those in the private sector. Based on Washington state's experience, I believe the proposed rule, when finalized and implemented, will spur further investment nationwide in non-carbon or low-carbon resources, and in demand-side energy efficiency. This greater investment, in turn, will spur technological advances and, in turn, lower costs to consumers.

I do not want to suggest that meeting the EPA's target will be easy, or that the proposed rule is not complex. As I noted earlier, the UTC is analyzing EPA's proposed targets to ensure that the agency did not overstate Washington's potential for carbon reductions in the energy sector and thereby set a target our state cannot reach using the tools prescribed. But while we will take a hard look at the numbers, we believe the structure of the proposed rule is sound.

Again, flexibility is key. The interconnectedness and interdependencies inherent in the electric grid complicate state-specific strategies for carbon pollution reductions. But EPA does not ignore those complexities. It has given state broad discretion in achieving the targets. It encourages states to work regionally, and Washington is ready and willing to engage with others in the Northwest to identify the best strategies to reduce carbon pollution. Unforeseen events will surely arise from time to time, and I remain confident that EPA's commitment to flexibility will ensure that system reliability is not compromised.

Thank you for the opportunity to testify before you today. I welcome any questions you may have.

Mr. WHITFIELD. At this time, I would like to recognize the gentleman from Montana, Travis Kavulla, who is a commissioner with the Montana Public Service Commission.

And Mr. Kavulla, you are recognized for 5 minutes. Thanks for being with us.

STATEMENT OF TRAVIS KAVULLA

Mr. KAVULLA. Thank you, Mr. Chairman, and Mr. McNerney, and committee members. It is great to be with you here today. I am going to leave aside the topics as well with climate change, which is real and the legal authority of the environmental—

Mr. WHITFIELD. Mr. Kavulla, is your microphone on?

Mr. KAVULLA. I believe it is, Mr. Chairman. Perhaps I will just pull it closer. I also leave aside the question of legal authority of the EPA to do to this, which is best addressed by the courts.

Instead, I want to focus squarely on specifics of the EPA's proposed rulemaking where the rubber hits the road, in other words, between the EPA's assumption of what the power industry is capable of where that coincides with the reality of on-the-ground examples, and let me first begin with the comment on reliability.

No reliability analysis of the EPA's proposed best system of emission reduction has been conducted for the western interconnection which encompasses 11 states spanning from California to Montana. Transmission planners of the Western Electricity Coordinating Council, which under FERC and NERC is responsible for adopting and enforcing reliability standards for this large slice of the continent, have told state regulators that they cannot accomplish such an analysis by the October comment deadline, so propositions that this rule results in a reliable grid or propositions to the contrary are simply speculation at this point. There is no time before the October comment deadline to say whether or not it is reliable.

As to the specifics of how state goals for carbon reduction are established by the EPA, as the subcommittee is aware, the EPA's proposed regulation sets forth individual state mandates based on what the EPA assumes are feasible accomplishments in four areas. Efficiency improvements at power plants, the increased operation of existing natural gas combined cycle plants that displace coal, the construction of renewable energy generators, and increased energy efficiency on the part of consumers.

These four building blocks, as the EPA calls them, are in general already being used by states to varying degrees for a variety of purposes, including carbon reduction. Yet, the EPA essentially ignores the details of a state situation and instead applies a cookie cutter formula that uses sweeping regional or national assumptions about the degree to which each individual building block is achievable.

Let me share with you a few examples. First, as Commissioner Anderson pointed out, the EPA assumes carbon emitting power plants that are subject to the rule would be able to achieve a 6 percent efficiency improvement. In other words, that 6 percent less fuel would need to be burned to obtain the same amount of electricity. This assumption is applied uniformly across the country, re-

ardless of whether a given power plant has or has not made these upgrades already.

Ironically, the many power plants that have already made such upgrades are penalized by the proposed rule because it is assumed that a further 6 percent reduction can be made against the 2012 baseline data the EPA uses.

Montana's 2,100-megawatt Colstrip facility, the second largest in the American west, has made the efficiency improvements that the EPA contemplates, obtaining 4 to 5 percent efficiency upgrades out of a total 6 percent the EPA speculates is possible and yet it receives no credit for these efficiency upgrades.

Another example in a similar vein is the Big Stone power plant in South Dakota which also serves my constituents in Montana. Big Stone is in the process of upgrading its air quality control system at a cost of nearly \$400 million. In order to control the emissions that cause haze, however, 8 megawatts of the plant's production will have to be dedicated to running the pollution control equipment causing carbon emissions to increase. In other words, to comply with one EPA rule endangers Big Stone's ability to obtain the efficiency upgrades that are assumed possible by this proposed EPA rule.

The second building block of the EPA simply adds error upon error. The EPA assumes that this facility, Big Stone, could be substantially replaced with natural gas-fired electricity generated at the Deer Creek generating station hundreds of miles away. There is one obvious problem with this. The plants are owned by different people, they didn't participate in the same markets together, and there are no existing transmission rights that tie the two plants together and to consumers who consume power from those power plants.

Second, as a practical matter, the reduction that EPA assumes relative to Big Stone would result in the plant operating at 23 percent of its capacity. Its minimum run level is 40 percent. This is a point where engineering simply runs up against the reality of the EPA's proposal.

Finally, the EPA assumes that renewable energy can be increased in order to reduce the operation of coal-fired energy in an offsetting manner. Coal plants are not engineered or designed to cycle in this way to integrate renewable energy. Moreover, long distance transmission lines, such as the one that runs from the Colstrip plant in Montana to points hundreds of miles west and supplies energy to states like Washington is dependent on the physical inertia that is put onto the grid by the operation of these large prime movers.

The reliability coordinator in the west has suggested that the past de-rating of this transmission grid would result from the absence of that inertia. I leave you with one final thought. The much heralded flexibility that the proposed EPA rule provides to states is a meaningless concept if the underlying goal, a number which is inflexible, has been calculated using generic assumptions that are misleading or false when applied to the facts of a specific state in the specific part of the transmission grid.

I am happy to take questions.

Mr. WHITFIELD. Mr. Kavulla, thanks for your testimony.

[The prepared statement of Mr. Kavulla follows:]

Summary of Travis Kavulla, Montana Public Service Commissioner**Sept. 9, 2014****State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan**

This testimony focuses on where the EPA's proposed carbon rule meets the practical realities of the power sector. In particular, I address the reliability impacts of the regulation and the generalizations that underlie the EPA's goal-setting process for states.

Despite "reliability" being a watchword in the conversation surrounding the EPA's regulation, no grid reliability analysis has been conducted in my region. No one is in a position to reach conclusions about the regulation's reliability implications for the Western grid. Moreover, such a study will not be completed by the October comment deadline.

The remainder of this testimony focuses on specific, on-the-ground examples where local realities diverge considerably from the generic assumptions that EPA uses to establish individual state goals. By applying a cookie-cutter formula to states, the EPA's "Best System of Emission Reduction" (BSER) is predicated on untrue generalizations not only about the upgrades available at power plants that emit carbon dioxide, but about the robustness of the electric grid, the nature of natural-gas generators' operations, and the prospects for increasing renewable energy and energy efficiency.

The power plants that generate electricity and the grid that moves electricity to and from are configured differently in each state and region. Montana and its neighbors rely on a weak grid and only a few generators to meet local consumer demand, exporting much of the rest of in-state electrical generation. Ironically, the EPA's state goal-setting process has the effect of punishing states in my region for being early adopters of pollution controls and for diversifying their fuel mix to include less carbon-intensive power plants. The proposed rule also swaps a local understanding of the possibilities and limitations of renewables and energy efficiency for sweeping assumptions about these things that are not sourced from state-specific experience.

The EPA's rapidly approaching October comment deadline must be extended to provide sufficient time for reliability analysis to be conducted, and many parts of the rule must be reworked considerably if state goals are to be founded on a realistic assessment of what is achievable in a state.

**Written Testimony of
Travis Kavulla
Montana Public Service Commissioner**

**Before the
Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives**

**Hearing on
State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan
Sept. 9, 2014**

Chairman Whitfield, Ranking Member Rush, and members of the Committee, I am honored to be given the opportunity to offer my thoughts on the Environmental Protection Agency's (EPA's) proposed 111(d) regulation, which if adopted has the potential to reshape large parts of the utility industry. As a state utility commissioner, I am tasked with approving the consumer rates that will be necessary to pay for what the EPA is proposing.

My focus today is not on the underlying policy debate. The Clean Air Act confers on EPA the authority—and indeed requires the agency—to address the emission of carbon dioxide and other greenhouse gases that contribute to climate change. Rather, my concerns regard the approach EPA is taking in fulfilling this responsibility.

I will address first an issue that is overwhelmingly important, the reliability of the electric grid, before moving to a consideration of the specific assumptions the EPA has used to establish state goals. Here, my focus is not on what states may do to comply with the specific lbs/MWh number the EPA has spelled out for them; those conversations will unfold over the coming years. For now, in advance of the EPA's rapidly approaching October comment deadline on the proposed rule, it is crucially important to engage in a discussion about the basis—really, the lack thereof—for the state goals EPA has proposed.

But first, allow me to introduce myself to the subcommittee. I was elected to office in 2010, and represent approximately 200,000 constituents in the State of Montana. The district I represent spans 500 miles across the service territories of numerous electric utilities. In addition to my duties on Montana's Public Service Commission, I serve in a number of other capacities that touch upon this important topic. I am the co-chairman of the Northern Tier Transmission Group's steering committee, which establishes policy for the cooperative planning efforts of several large transmission owners in Montana, Idaho, Utah, Wyoming, and Oregon. Additionally, I am a former Director and currently serve on the Member Advisory Committee of the Western Electricity Coordinating Council (WECC), the organization charged by NERC and FERC with adopting and enforcing reliability standards for the Western Interconnection that spans from California to Alberta. WECC also conducts transmission planning and reliability analyses that model the consequences of public policy proposals like the 111(d) rule. Finally, I serve on the Boards of Directors of the National Association of Regulatory Utility Commissioners and its research arm the National Regulatory Research Institute.

Reliability

Much of the conversation around the EPA's proposed rule has focused on the question of reliability. I will not speculate on the rule's reliability impacts, for the simple reason that no reliability analysis of the EPA's proposed "Best System of Emission Reduction" (BSER) has been conducted for the Western Interconnection, which encompasses 11 states, 2 Canadian provinces, and Mexico's Baja California. Transmission planners at WECC, which is responsible for adopting and enforcing reliability standards for this large slice of the continent, have told state regulators that they cannot accomplish such an analysis by the October comment deadline.

Other than WECC, few if any other organizations are in a position to conduct such an analysis. In any case, none have.

Many, including the EPA itself, have said that whatever else the proposed regulation accomplishes, it must keep the electric grid operating reliably. I agree. Absent a transmission modeling study that concludes that the BSER's Building Block approach would result in a system as reliable as the one we have today, it is inappropriate to claim that the EPA's BSER is adequately demonstrated.

EPA has modeled the outcome of the BSER assumptions using its Integrated Planning Model (IPM). It is important to understand what this model is and is not. The IPM does not and is not intended to model the operations of the transmission grid. Instead, the model focuses on whether in a particular region there are an adequate amount of electric supply resources to meet consumer demand. While this question of resource adequacy is essential to reliability, it is equally necessary to understand whether the resources that exist in a particular region can be delivered to the consumer location of demand. Many of the most critical resources that serve large pockets of consumer demand are located in transmission-congested areas. If this transmission congestion is not incorporated into a model—and, again, IPM does not—then that model cannot reach meaningful conclusions about system reliability. In other words, the way IPM has drawn the regions in its hub-and-spoke representation of the grid do not capture the significant complexity of grid operations *within* the given region. Additionally, IPM uses an old-world definition of regions that does not accurately represent the present realities of how the transmission grid has been divided into Regional Transmission Organizations (RTOs).

Even assuming that the BSER is otherwise a feasible metric for accomplishing the EPA's goal of reducing carbon dioxide emissions, it must be subjected to transmission modeling. This is

not possible before the October comment deadline. For that reason alone, the deadline should be extended.

The EPA's Building Block Approach to Establishing State Goals for Carbon Reduction

As the subcommittee is aware, the EPA's proposed regulation establishes individualized state mandates based on what EPA assumes are feasible accomplishments in four areas: efficiency improvements at power plants, the increased operation of existing natural-gas combined cycle plants, the construction of additional renewable generators powered by wind and solar, and increased energy efficiency on the part of consumers which reduces overall demand. These four Building Blocks are, in general, already being used by states to varying degrees for a variety of purposes, including carbon reduction. Yet the EPA essentially ignores the details of a state's situation, and instead applies a cookie-cutter formula that uses sweeping regional or national assumptions about the degree to which each individual Building Block is achievable. The result is that any given state goal is predicated on a so-called Best System of Emission Reduction that ignores the realities of commercial relationships, the way in which generators are dispatched, the footprint of regional markets, the status of individual power plants, the robustness of the electric and natural gas transmission system, and potential energy efficiency savings on the ground. Even though the state goal-setting process of the BSER is flawed, some states nonetheless would be able to achieve the goal by other means (for example, by simply shutting down coal-fired generators, and not attempting to implement the Rube Goldberg device the Building Blocks represent). But for other states, the application of the BSER's Building Blocks to the state's electric profile results in a goal that is unrealistic via the BSER or by other means short of a complete overhaul of its energy supply mix.

Building Block 1: Efficiency Improvements at Coal-Fired Power Plants

The EPA assumes carbon-emitting power plants that are subject to the rule would be able to achieve a 6% efficiency improvement (i.e., 6% less fuel would need to be burned to obtain the same amount of electricity). This assumption is applied uniformly across the country, regardless of whether a given power plant has or has not made these upgrades already. Ironically, the many power plants that have already made such upgrades are penalized by the proposed rule because it is assumed that a further 6% reduction can be made against the 2012 baseline data the EPA uses, in which the results of efficiency improvements are already embedded.

A specific example of this is the Big Stone plant located in South Dakota. Co-owned by Otter Tail Power, Montana-Dakota Utilities, and NorthWestern Corporation, it provides energy to consumers throughout the Great Plains, including to the MDU customers I represent in Eastern Montana. Big Stone's owners have already made most of the heat-rate upgrades Building Block 1 contemplates. Additional efficiency improvements capable of obtaining another 6% savings are simply unavailable, and the few improvements that could be made are simply not economical. Also, in order to comply with another EPA rule, the Regional Haze Rule for South Dakota, Big Stone is in the process of installing upgrading its Air Quality Control System (AQCS), at a cost of nearly \$400 million. In order to control the emissions that cause haze, however, 8 megawatts of the plant's production will have to be dedicated to running the pollution control equipment. This "parasitic load" actually means that more tons of carbon emissions per megawatt-hour of net production will be produced by the plant, but in service of controlling haze. In other words, to comply with one EPA rule endangers Big Stone's ability to obtain the efficiency upgrades that are the assumed possible by the proposed EPA rule.

Montana's 2,100-megawatt Colstrip facility—the second-largest coal-fired power plant in the West—is in the same situation. That facility's operator, PPL-Montana, has made several efficiency improvements over the last decade that have made the plant operate about 5% more efficiently. These upgrades include an approximately 3-4% efficiency improvement resulting from using a new blade design in the turbine rotors, allowing the plant to use the same amount of steam flow to generate more electricity; a less than 1% efficiency gain from boiler upgrades; and a less than 0.5% efficiency upgrade resulting from cooling tower and fan improvements. There are not many other examples of additional projects that could be undertaken to result in efficiency improvements. Those that would work in certain parts of the country—for instance, drying moisture out of coal to improve the efficiency of combustion—will not work for Colstrip, because demoisturized Powder River Basin coal becomes very combustible. Experiments at Colstrip with this approach have resulted in spontaneous combustion events. PPL-Montana already has a strong incentive to pursue efficiency upgrades that reduce cost and emissions alike, and at Colstrip most of those upgrades have already occurred. Only 1-2% efficiency gains remain on the table for Colstrip, yet in setting Montana's goal, the proposed rule assumes that 6% efficiency improvements are available. This is simply not true.

If EPA continues to use Building Block 1 to establish state goals, it should incorporate plant-specific data and not use a generic assumption that does not reflect the present status of individual plants. The agency must give credit to plants that have already made upgrades, and it should not punish states for heat-rate degrades that have resulted from installing pollution control equipment necessary under other air-quality rules.

Building Block 2: Increased Natural Gas Dispatch

Much of the attention paid to the BSER appears to have focused Building Block 2, questioning whether the nation's gas infrastructure is robust enough to support this Building Block's assumption that natural gas combined cycle combustion turbine (CCCT) plants can run consistently at a 70% capacity factor. I share this concern, but would like to focus on another specific example from my region where the EPA's assumptions do not comport with the realities on the ground.

Carbon savings associated with Building Block 2 occur in the EPA's assumptions because for every megawatt-hour of new generation from a CCCT, there is assumed to be a megawatt-hour less of generation from a more carbon-intensive generating unit. It appears that for a state plan to be compliant with the EPA's proposed rule, it would somehow need to demonstrate this offsetting relationship. Yet there are practical barriers that make this one-for-one exchange difficult or impossible.

The Big Stone plant, referred to above in relation to Building Block 1, is again an instructive example. The EPA assumes that this facility would be substantially replaced with natural-gas fired electricity generated at the Deer Creek Generating Station, which under Building Block 2's assumption would run at 70% capacity. These are the only two fossil units in South Dakota, and they serve customers in that state as well as North Dakota, Minnesota, and Montana.

There are several flaws with this assumption. First, the dispatch of these generating units is orchestrated by two separate operators. Although the EPA appears to assume that their operation is seamlessly interrelated, that is simply not the case. Deer Creek is dispatched through the region's Integrated System (IS) jointly operated by Basin Electric Power Cooperative (Basin)

and the Western Area Power Administration (WAPA); in 2016, it is planned that WAPA and Basin will participate in the Southwest Power Pool (SPP). Meanwhile the Big Stone plant operates within the Midcontinent Independent System Operator (MISO), which dispatches the share of power generated at the plant for MDU's customers, including those in Montana. IS/SPP and MISO do not share a dispatch signal that would allow one plant's increased operations to result in the lower dispatch of a plant operating in a different market. To analogize, it would be like suggesting that an apple bought in a supermarket on one side of town means one less will be sold at the store at the other side of town. There may be some interrelation between the two electric markets in question here, but it is not controllable absent a reorganization of the way the two markets interact, which is no easy matter. EPA appears to assume, in Building Block 2, that simply because two power plants are located in the same state, they must have a strong relationship with one another. In some states, this would be true. In South Dakota, in Montana, elsewhere, it is not true.

Additionally, these two power plants—Big Stone and Deer Creek—were built to their particular size and in their particular location, to serve the needs of their utilities' customer bases, not those of other utilities. Each of the various owners of each of these plants own firm transmission rights from these units to their retail loads; naturally, they do not own transmission rights originating at a plant they do not own, to their customers.

As a practical matter, the reduction that EPA assumes relative to Big Stone would result in the plant operating at 23% of capacity. Its minimum run level is 40%, meaning that the plant would either be required to be shut down or not run for a substantial period of the year (with an unknown impact on reliability). As noted above in my comments regarding Building Block 1, this is a plant that is at this very moment undergoing an expensive, \$400 million upgrade to

comply with other environmental rules; any “Best System of Emission Reduction” that causes its removal from the supply pool is not worth the name. Meanwhile, Basin designed Deer Creek, which became operational in 2012, to run 12-16 hours per day for five days a week; in other words, it was intended to operate a little less than half of the time, not 70% of the time. One of the reasons it was designed in this way is to integrate Basin’s substantial and growing portfolio of wind energy, which is abundant in this part of the nation. Deer Creek needs to have the capability to dispatch up when the wind suddenly does not blow, and need to be able to dispatch down when the wind picks up. Operating at a high capacity factor, 70%, would not allow the kind of ramping that is essential to Deer Creek’s purpose. It is yet another irony that operating natural gas plants the way Building Block 2 suggests could hamper those units’ ability to accommodate carbon-free wind energy. Utilities have built CCCTs in order to be on call to serve peak demand and to integrate variable energy resources like wind and solar. Yet the EPA rule essentially punishes consumers whose utilities have increased the diversity of their fuel mix by adding a CCCT, because any CCCT that operates at a lower-than-70% capacity factor is, for the purpose of setting a more onerous state goal, assumed to be able to dispatch up to that level on a 24-7 basis.

Building Block 2 simply does not acknowledge the realities of the power sector. EPA should make accommodations for states where no market relationship exists between a CCCT and the coal-fired generating unit the BSER assumes it will offset.¹ It should also assume a lower average dispatch for the many CCCTs whose purpose is not just base-load power, but serving peak needs and integrating weather-dependent renewables.

¹ Enacting the assumptions in Building Block 2, with this condition, would nonetheless require grid operators to dispatch higher-cost plants before lower-cost plants, rearranging what has traditionally been the straightforward practice of dispatching lower-cost units until the system demand is met. This is possible by adding a carbon price to the bid price of a coal plant within a market, and while disadvantageous to consumers, it is nonetheless possible. Building Block 2 in its current form is not possible.

Building Block 3: Increased Renewable Energy

Renewable energy has great promise in Montana and neighboring states, but the ability to construct new wind energy parks is limited by the constraints of the transmission system to send the energy to more populous areas where demand is concentrated, and by the ability of the rest of the generating fleet and the grid to reliably integrate weather-dependent renewable energy which may or may not be generated as needed. These are not intractable problems, but it is clear that the EPA rule has not thoroughly considered them—certainly not on the state-to-state basis that is necessary for the BSER to be adequately demonstrated.

As a preliminary matter, the EPA rule is vague and even self-contradicting on the question of which state should get credit for renewables. Should it be the state where the renewable generator is located, or another state where consumers of the energy might reside? Montana's Colstrip facility is mostly dedicated to serving out-of-state consumers over a long-distance, 500-kilovolt transmission line. Nonetheless, Montana under the EPA's proposed rule is assessed all of the carbon emissions associated with the facility. If this remains the case in the EPA rule, so too must it be clear the Montana-based renewables would count against the carbon footprint of this facility. Without this provision, Montana would not be able to use Building Block 3 as a step toward complying with the state's goal.

Second, the EPA has established the regional targets of Building Block 3 using an erroneous calculation. The EPA has reasoned that each state in a given region—"the West" is one, very large region in the rule—is capable of meeting a renewable energy target that is the average of the Renewable Energy Standards (RES) of the states in that region. For purposes of deriving this average, EPA has said that Montana has a 15% RES. This is misleading. Montana's

RES, like some other states', only applies to certain actors—namely, only to investor-owned utilities and certain small competitive suppliers serving Montana customers. It does *not* apply to consumer-owned utilities, to public power projects, or to generators owned by out-of-state utilities. In effect, Montana has required new renewable energy resources to constitute far less than 15% of the total generating mix. It is unclear what a true average of state requirements would look like, but it would certainly reduce the 21% regional renewable energy target for the West in Building Block 3, perhaps substantially.

There is unquestionably a bounty of wind resources in Montana. The state has the potential to develop more renewable generation than even the EPA's Building Block 3 imagines. But the ability to develop those resources is severely limited by the nature of the transmission grid. WECC has previously modeled scenarios where large amounts of "remote renewables" are located in Montana and Wyoming to serve out-of-state consumers. In those studies, the path limits of the transmission corridors from Montana to the Northwest were routinely (almost half of the time) pushed to the limit, and energy from renewables was forced to be "dumped"—generated, but not able to be transmitted to the customers who need it. One WECC study warned²:

The path rating for Path 8 [the Montana to Pacific Northwest corridor] is currently highly dependent on remedial action schemes that are directly linked with the coal-fired and hydro generation in Montana. There are inertial concerns in the area. The local balancing authorities have advised caution when running studies that dispatch renewable generation before coal-fired and hydro generation. In reality, the rating on Path 8 may have to be decreased when these conventional resources are backed down, or turned off completely.

Building Block 3 calls for less renewable energy than was modeled in those reliability analyses. However, this and other studies have made clear that there are reliability concerns associated

² WECC, "2022 Resource Options," (July 25, 2013), p. 51.

with adding renewables in Montana without significant transmission upgrades, which for reasons from siting to finance have been very difficult to come by. Adding capacity to new lines is on a limited basis possible, but it is expensive and these cost assumptions are not discussed in the EPA's proposed rule. On the other hand, if the construction of a new line was necessary to implement Building Block 3, it is not at all certain that this would be possible in time to meet EPA's goals.

Additionally, like for Building Block 2, the EPA assumes that renewable energy and coal-fired energy will be dispatched in an offsetting manner. This requires certain assumptions about the flexibility of coal plants that are unreasonable. Coal plants typically are not designed to cycle quickly to integrate renewables; they are meant to be run relatively flat, ramping up and down over longer periods of time. Even the certain coal units that are today being dispatched more quickly are showing more carbon-intensive heat rates; they emit more carbon per megawatt-hour for the energy they do produce, and it appears that effect has not been captured in the EPA's proposed rule. In Montana, as the quotation from WECC above notes, the high voltage transmission line that runs from Colstrip to points hundreds of miles west is dependent on the inertia this very large coal-fired plant provides. If that facility does not run, then the line may not be reliable to operate. Specific instances of transmission vulnerability, like this one, have been entirely overlooked in the EPA's proposed rule.

Like for Building Blocks 1 and 2, the EPA must not fall through the trapdoor of generalization when it comes to imposing Building Block 3 for the creation of a state goal. Montana's example in this regard is telling.

Building Block 4: Increased Energy Efficiency

The EPA's energy efficiency targets are, unlike renewables, not even predicated on a regional average—but a national average, which supposes that it is possible to achieve an annual 1.5% savings through energy efficiency measures. Each state's utility commission of which I am aware has evaluated the potential energy savings available to the utilities it regulates, and the possibilities depend on many variables, from climate of the region, to the hours of daylight at the particular latitude, to the mix of consumers (industrial versus residential) served by the utilities. That is why each state has a utility commission, and why it makes sense to house this kind of decision-making at the state or local level, and not in a federal agency. Unfortunately, Building Block 4 is perhaps the banner example of the BSER's supposition of an arbitrary target that lacks meaningful substantiation in the real world. The Public Service Commission in Montana (and the comparable agency in many other states) already obligates the utilities that it regulates to acquire all cost-effective energy efficiency available to them. The EPA's rule supposes that there is a substantial amount beyond this available for the taking. This assumption is only thinly evidenced in the EPA's rule.

Additionally, the practical implementation of Building Block 4 runs into the same problem that characterizes Building Blocks 2 and 3: a disconnect between the demand in a state that energy efficiency would apply to, and the generating resources of that state. In the case of Montana, I have observed above that the carbon-emitting units subject to the 111(d) proposed regulation mostly are dedicated to serving out-of-state consumers. Yet Building Block 4 assumes a reduction in demand on the part of Montana consumers, many of whom have nothing to do with the operation of the coal-fired units in question. There is no direct, causal link between a Montanan's energy savings, and the amount of generation output at the Colstrip facility that constitutes the vast majority of Montana's carbon emissions. The EPA rule is vague about how a

state in Montana's position could implement Building Block 4 in a way that the EPA considers compliant, i.e., that shows an offsetting effect between energy efficiency programs and coal-fired generating units.

Additionally, it is unclear how a state plan that includes energy efficiency would be enforceable. Presumably such a plan would attempt to identify specific programs that would lead to energy efficiency gains, but the points of compliance would be possibly thousands of consumers performing small, discrete actions, and not typical of other environmental regulations that require a single plant operator to install pollution control technologies. The Montana PSC's experience with measuring energy efficiency savings is that it relies heavily on assumptions (what was saved against a hypothetical base case). Demonstrating compliance could prove difficult and contentious.

Finally, this Building Block, like others, ironically punishes early adopters of energy efficiency. The Building Block, as applied to states, ramps up at a 0.2% level annually to a 1.5% annual energy savings. So a state that is already aggressive in its energy efficiency programs, and which presumably has invested in more and more costly energy efficiency investments over time, may be starting out at around a 1.5% savings, which the Building Block holds the state to throughout the compliance timeframe. Meanwhile, a state with a modest energy efficiency portfolio may start with, say, a 0.5% annual savings, and it would take five years for the Building Block to ramp up the savings to 1.5%. In short, the proposed rule is more punitive on early adopters and those who have already achieved many energy efficiency gains, than those who have not.

If it continues to use Building Block 4 as part of the BSER, the EPA should only consider the possible energy efficiency savings of consumers who have a direct relationship with the

dispatch of a coal-fired generating unit. Additionally, the EPA should defer to states on identifying the amount of energy efficiency savings that are cost-effective given the profound differences that exist between states in relation to this question.

Other concerns

Basing an entire regulation on a single year of data (in this case, 2012) is problematic for two reasons. First, any given year may be unusual compared to what is typical, and in the Northwest, a good water year and low gas prices caused coal plants to run less often in that year than they otherwise would have. A multi-year average would better represent what is typical. Second, although much of the data EPA collects is subjected to quality assurance and quality control, there are still a number of different methodologies for measuring the carbon intensity of a power plant. The rule's underlying assumption is that reductions will be measurable and real compared to a baseline year's data which is similarly assumed to be measurable and real. This hopeful assumption may not be accurate.

It is clear that the EPA proposal requires major changes, if not a complete overhaul. Even if the EPA did not make changes to deal with the numerous criticisms of matters that the EPA has tentatively settled upon, there are numerous points in the proposed rule where the EPA itself has merely offered a spectrum of potential directions and requested comment about which option the EPA should select. The draft rule is not fully baked, meaning EPA could arrive at a final rule in which states will be seeing key elements of the rule (and the potential interaction between key elements) for the first time. There needs to be another substantial round of comment, with the possibility of further changes, and not a final, immovable rule in 2015.

I have appreciated the opportunity to express these views on the record, and am happy to answer questions about them. I leave you with one final thought: The much-heralded flexibility that the proposed EPA rule provides to states is a meaningless concept, if the underlying goal—a number which is inflexible—has been calculated using generic assumptions that are misleading or false when applied to the facts of a specific state, in a specific part of the transmission grid. The goals established for states must be premised on reasonable, adequately demonstrated measures. The EPA's rule has much progress to make in that regard.

Mr. WHITFIELD. And thank all of you for your testimony, and as I said, for being with us today.

At this time I would like to recognize myself for 5 minutes of questions.

One of the common things that we have heard from EPA when they have come to talk about this rule is the flexibility given to States.

And both Ms. Speakes-Backman and Mr. Danner stress that as well.

But listening to the other four of you, Mr. Darwin, you specifically said you don't have a lot of flexibility when you have one option. And that is one of the things that really concerns us, is that it is easy to say you have flexibility. But when the reality is you only have one or two options, then that is not flexibility.

Do you agree with that assessment, Mr. Anderson, or do you think that the State of Texas is given sufficient flexibility to deal with this issue?

Mr. ANDERSON. Well, to the extent that we have to use the building blocks themselves—and there is some question about that—the fact of the matter is that use of any—of block 1, 2 and 3 will work cross-purposes.

Mr. WHITFIELD. Will work cross-purposes.

Mr. ANDERSON. Will work at cross-purposes. An example—and Travis actually gave a good example. But for example, in Texas, if in fact, in the evenings, whether it is summer or fall, you are supposed to use more renewables out of block 3, then that will cause co-plants to have to either be turned off or back down.

Mr. WHITFIELD. So these four building blocks, whether it sounds perfectly fine, there is a lot of inconsistencies about it and, if you take one action, you may be detrimental in another way. And I think most of you would agree with that.

Mr. ANDERSON. You can actually cause more pollution.

Mr. WHITFIELD. Now, let me ask you this, how did EPA—we have heard a lot about that they have discussed this in great detail with the States.

How did they determine the final goal for each State? Can someone explain that to me? How was that determined? Does anyone know?

Mr. KAVULLA. Sure. I believe I can take this. I am sure Commissioner Speakes-Backman can speak to it as well. They established the, "best system of emission reduction," or BSER, which uses the four building blocks. Within those building blocks, there are certain assumptions of what each State, a region, or a nation is capable of. For instance, it is assumed that every State in the Union is capable of a 1.5 percent annual, cumulative energy efficiency savings resulting in a little north, I think, of a 10 percent energy efficiency goal altogether. That is a national assumption. That is applied—

Mr. WHITFIELD. So would I be wrong if I said these are assumptions that EPA has made?

Mr. KAVULLA. They are the assumptions and they are the predicate of the actual State number, although a State can choose to comply.

Mr. WHITFIELD. And these States are really diverse. I mean, Kentucky and California have almost nothing in common. I mean, we have very diverse States.

So here they are, federalizing the electricity system based on assumptions. Now, someone made the comment there has not really been a reliability study in their area. Who stated that?

Mr. Kavulla. Is that the case that reliability is key?

Mr. KAVULLA. That is correct, Mr. Whitfield. The Western Electricity Coordinating Council has told State regulators that it has not able to conduct a reliability analysis of the building blocks taken at face value.

Mr. WHITFIELD. Do the rest of you feel like that the reliability issue has been adequately addressed? FERC told us that EPA really did not work with them closely on reliability issue relating to this rule.

Ms. SPEAKES-BACKMAN. Mr. Whitfield, I would love to respond to that. The Organization of PJM States, Inc., or OPSI has made a formal request of our own ISO. I think part of that is to do with—

Mr. WHITFIELD. But has the ISO completed the study?

Ms. SPEAKES-BACKMAN. They have not yet completed the study.

Mr. WHITFIELD. Have not completed the study. OK.

Let me ask you this, how many of you feel like you can give an adequate response with a comment by the October deadline set by EPA?

Ms. SPEAKES-BACKMAN: I feel—

Mr. WHITFIELD. Do you feel like you have adequate time to meet this?

Mr. ANDERSON. That will be impossible in the case of Texas.

Mr. WHITFIELD. Impossible for Texas.

Mr. EASTERLY. We won't be complete.

Mr. WHITFIELD. You won't be complete in Indiana.

Mr. DARWIN. Well, we are planning on submitting our comments by October 16th.

Mr. WHITFIELD. You are planning to do it. OK.

Ms. Speakes-Backman.

Ms. SPEAKES-BACKMAN. We are shooting for October 15th, sir.

Mr. WHITFIELD. Mr. Danner.

Mr. DANNER. Yes. We are going to file our comments and—

Mr. WHITFIELD. Mr. Kavulla.

Mr. KAVULLA. We will be able to submit comments. We will not be able to make conclusions about the reliability implications.

Mr. WHITFIELD. OK. And I would assume that all of you would welcome a delay. I mean, they just issued this 600 rather complicated complex rule in July, and they want these comments by October. Would most of you support a request for an extension for time to give a comment.

If you would—if you don't want any more time, raise your hand. [Nonverbal responses by Texas, Indiana, Arizona and Montana.]

Mr. WHITFIELD. OK. You don't want any more time.

OK. My time is expired. I wish I had more time.

But, Mr. McNerney, I recognize you for 5 minutes.

Mr. MCNERNEY. Speaking of running out of time, Mr. Chairman.

I thought your testimony was good. There was a lot of variety, a lot of variance in what you are saying.

Ms. Speakes-Backman and Mr. Danner both testified that the proposed plan has flexibility—sufficient flexibility and either causes no harm to the local economy or actually improves the local economy. Would you affirm that that is essentially what you said?

Ms. SPEAKES-BACKMAN. Yes, sir. That is exactly what—I can only speak for myself.

Mr. MCNERNEY. Right.

Ms. SPEAKES-BACKMAN. But as I heard Chairman Danner, he is also saying the same.

But not only have we not done detriment, but we also did a review of our RGGI program, and the residential commercial and industrial impacts for the RGGI region were all less than 1 percent impact on retail rates. And for Maryland, specifically, it was a positive impact.

Mr. MCNERNEY. Mr. Danner.

Mr. DANNER. Yes. And I would agree that we see benefits. We are going to file comments—we do have some technical considerations. In fact, some of the things that he identified are things that we see as technical considerations. And EPA has asked for those comments, and EPA is going to consider those comments. So we don't have a finished proposal here.

But that said, yes, we see benefits that are coming from this proposal. And remember, too, that there are costs to the economy of taking no actions. So a delay is not something we would want.

Mr. MCNERNEY. Now, would you expand on how Washington State was able to accomplish this, despite the opponent's contending that the prices would skyrocket under your plan.

Mr. DANNER. Well, it was the voters. The voters actually by initiative approved a renewable portfolio standard and a conservation standard. And now that we have implemented the renewable portfolio standard, we see that the cost impacts on consumers are very modest and the conservation standard we see that they are actually getting savings.

And with regard to the shut down of the coal plant, it is something, if you do an orderly transition—

Mr. MCNERNEY. Right.

Mr. DANNER. [continuing]. Then, basically, you are able to plan for it. In fact, transmission planners work on a 10-year planning horizon for the most part; and 2030 is 16 years away. Plants close with some regularity. They close because of commercial decisions and planned outages and unplanned outages, and transmission planners have to respond to that on an ongoing basis. So we see that these are technical issues we can raise, but we need to push ahead.

Mr. MCNERNEY. Thank you. Mr. Darwin, one of the things you said, I believe, is that—I believe you said it—was that initially there wasn't much—that you had a feeling that EPA wasn't really giving you the flexibility or listening to your inputs, but in the last few months, that they were actually listening to your inputs and you feel like they are going to move forward with some of your comments. Is that correct?

Mr. DARWIN. That is correct. Some of the assumptions they made in their plan simply don't work for Arizona. And when we have explained to EPA why they don't work, they seem to be listening. The fact of the matter is, is that they have assumed that we don't use all of our natural gas capacity when you have taken an annual average. Well, what that fails to recognize is the fact that during our peak summer months, we are nearing our capacity.

Mr. MCNERNEY. Right.

Mr. DARWIN. So that is something that they just simply didn't take into consideration when making their assumption. So we are hoping that, given that and the deadline that they have set for us by 2020, which we have to obtain 75 percent of our goal by 2020, that given those two assumptions, that those two factors, that they would give us and others in our similar circumstance some relief in that area. And they have given us some indication that they will.

Mr. MCNERNEY. Good. I am glad to hear that.

One of the problems I heard from some of the panelists is that prior reductions aren't being taken into consideration. I think Mr. Anderson mentioned that and Mr. Kavulla mentioned that, and so I think that is something we need to take up with the EPA. How do we fairly take into consideration prior achievements in terms of the energy efficiency and the intensity of carbon reduction per kilowatt hour. So that is something we should take up with the EPA. Thank you for your testimony on that.

Flexibility and time. I mean, I think with the timeline that goes out to 2030, that you should have enough time to make an early transition, if this is required. Is that not—is that not reasonable, Mr. Kavulla? Is that time frame still too short?

Mr. KAVULLA. It is because there are two goals. There is 2020 interim goals, and then there is 2030 goals. For instance, by the 2020 deadline, it is assumed that this natural gas dispatch will have replaced a substantial amount of coal generation for States with underutilized natural gas generators that run only for peak demands for air-conditioning. The assumption that those would run for 70 percent may have transmission implications that are even less than the 10-year planning horizon that transmission planners typically undertake. As well, transmission planners would often take 20 years for major redesigns of this grid.

Mr. MCNERNEY. So there should be some more flexibility in terms of the 2020 time frame. Would that be something that would help this—

Mr. KAVULLA. Absolutely.

Mr. MCNERNEY. OK. Thank you.

Mr. WHITFIELD. Thank you, Mr. McNerney.

So our stenographer, I would just ask that when I asked the question what States needed additional time, the four that needed additional time were Texas, Indiana, Arizona, and Montana. The two that did not need additional time were Maryland and Washington. And as I said, I needed more time, too, but that is oK.

At this time, I would like to recognize the gentleman from Texas, Mr. Barton, for 5 minutes.

Mr. BARTON. Thank you. This is just out of curiosity. It is not my main line of questioning. But, Mr. Anderson, what percent of Texas electricity is generated by hydro?

Mr. ANDERSON. It is a fraction.

Mr. BARTON. Is it 1 percent?

Mr. ANDERSON. I am not even sure it is 1 percent.

Mr. BARTON. OK.

The gentleman from Washington State, what percent of your State's electricity is generated by hydro?

Mr. DANNER. Well, it depends on the year. Sometimes we have high flows. Sometimes we have low flows. But it is basically around 60 to 70 percent.

Mr. BARTON. Sixty to 70 percent. I just thought we would put that in the record. Since they said they weren't going to be impacted in Washington by the——

Mr. DANNER. So may I comment on that, Representative Barton? I——

Mr. BARTON. Well, I asked the question—if you comment very briefly——

Mr. DANNER. OK.

Mr. BARTON. [continuing]. Because that is not my main line.

Mr. DANNER. Well, I want to say that every State's target is also different. And EPA recognized that we were a high hydro State, and that is why we have the highest percentage reduction requirement of 72 percent.

Mr. BARTON. Well, bless their hearts.

Mr. Anderson, how much input did EPA ask from the PUC before they issued their proposed regulation?

Mr. ANDERSON. I actually looked into that, and the answer is none.

Mr. BARTON. None?

Mr. ANDERSON. Nor did they recount to ERCOT, our grid operator.

Mr. BARTON. Zip? Nada.

Mr. KAVULLA. There was no contact, no questions.

Mr. BARTON. Largest energy producing State in the country, and they asked for no input. What about ERCOT? You said none for them.

Mr. ANDERSON. No. I asked that question before coming up.

Mr. BARTON. All right. What about TCEQ.

Mr. ANDERSON. There may have been conversations. I don't know.

Mr. BARTON. But it's safe to say it's minimal? I mean, none is none, but——

Mr. ANDERSON. That has been our experience.

Mr. BARTON. OK. Now, since it has been released, the gentleman from Arizona said that they have gone back to EPA, and they seem to be listening.

What is your perception of how well EPA is listening to Texas these days?

Mr. ANDERSON. Well, from the proposal itself, I would say not very. But to be honest, we haven't reached——

Mr. BARTON. We want you to be honest.

Mr. ANDERSON. We have not reached out to EPA yet, because, frankly, we are still trying to digest the rule. Now, we may try to file some comments by October 16. My point was that we won't have good, steady data relating to costs or reliability until the end of the year.

Mr. BARTON. But just to be clear on the record, the State that has got to reduce over—get over 25 percent of the total reductions wasn't asked or apparently given an opportunity to have any input before they put out their regulation.

Mr. ANDERSON. Well, we did file—the EPA asked earlier this year for comments. And the TCEQ, our environmental agency in Texas, as well as the PUC, filed joint comments, laying out—laying out areas that we thought the EPA—

Mr. BARTON. Now, is that before or after they released their proposal.

Mr. ANDERSON. That was before they released the rule.

Mr. BARTON. So they had some inquiry.

The gentleman from Montana, I thought your testimony was extremely illuminating and fact based, very practical.

What has been EPA's response, if any, to the realities of your testimony when you go to them? Do they say, Yes, you are right about that? We need to include it. Or do they just yawn, or have you even attempted to interact with them?

Mr. KAVULLA. Well, Mr. Barton, they have been open to listening and having meetings, but their proposal itself exists in written form and, of course, they don't make any commitments to you about the—what you counter propose to them until you actually see the proposed regulation or, next year, the final regulation. So simply put, I don't know.

I will give you an example. I have been able to arrange a Webinar for the EPA to explain its modeling software, which as I described in my written testimony, does not include a transmission reliability analysis. And after a week or two delay, they were able to set it up for us. So I am grateful to them for that.

Mr. BARTON. OK. This is kind of a generic question. But most of the EPA health-based standards, there is a standard parts per million or some metric standard. Is there such a standard in this regulation for CO₂?

Mr. EASTERLY. No. That is one of the challenges with the CO₂ issue; there is not clear goals. So the goals are to reduce this and reduce that. But overall, how we are going to reduce our greenhouse gas emissions across the country, there is not a plan for the—

Mr. BARTON. There is not even the facade of an attempt to say, this is what we think the health standards should be, which is the entire purpose of the Clean Air Act. And in this case, it is, again, nada, zip, nothing.

Mr. EASTERLY. That is correct. That was in some of our comments on—

Mr. BARTON. With that, Mr. Chairman, I yield back.

Mr. WHITFIELD. The gentleman's time has expired.

At this time, I recognize the gentleman from Texas, Mr. Green, for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

And, Mr. Anderson, just—before EPA released the—they did ask generally for comments. Is that true?

Mr. ANDERSON. Yes, they did.

Mr. GREEN. But they didn't contact our State agency, for example, or ERCOT or the Public Utility Commission or—but generally, they did—

Mr. ANDERSON. They didn't—

Mr. GREEN. [continuing]. Before the release of the rule?

Mr. ANDERSON. They didn't reach out to the staffs to ask about how the grid worked in Texas, for example.

Mr. GREEN. Yes. Well, obviously, we need to work with EPA on that because I know their issue is not reliability, but it is our issue. And we will make sure about that.

In your testimony, you said Texas receives no credit for previous renewable investments. That is a concern I voiced repeatedly two to three times, Texas will lead the Nation in nonhydro-renewable energy power. And that is what worries me. Our energy power, what we used to get out at the Highland Lakes in the Austin area, the droughts reduced all that.

So what challenges does Texas renewable energy market face in the next decade that would prohibit growth as envisioned by the EPA?

Mr. ANDERSON. Really, I don't see a lot of challenges, other than the production tax credit. But we are still going to see renewable development, I think, in Texas. The—I was actually trying to be kind when I said we didn't get any benefit. Actually, we are being penalized because they are asking us to effectively double down on—

Mr. GREEN. Well, and that is what I said earlier, and that is our problem. We are not getting credit for what we have already done. And we are going to continue to do it, but the problem is this new rule makes it so much more difficult. And maybe sitting down with Texas, which I would like them to do and work it out.

Your testimony doesn't mention building block 4, energy efficiency and demand-side response. Can you quickly share your comments or thoughts about that—

Mr. ANDERSON. We will have—well, our—we do have an energy efficiency program, and we were one of the earliest to implement it actually in the 1990s.

But our energy efficiency standard in Texas is a little different from most States. It is focused on peak saving in the summer.

Mr. GREEN. Yes.

Mr. ANDERSON. Because, again, in the summers we—it is hot.

Mr. GREEN. And it is also based on the number of kilowatt hours—

Mr. ANDERSON. Yes.

Mr. GREEN. [continuing]. And not a percentage.

Mr. ANDERSON. And it is—it is based on kilowatt hours and a percent of the peak in August in effect.

Mr. GREEN. Which is—

Mr. ANDERSON. We would have to redesign the program entirely. And it is not clear, frankly, what we can obtain in a redesign.

Mr. GREEN. Well, I am pleased to read your comments that, in August, Texas regulators prepare a plan to address EPA's ESPS

rule. And but because the rollout of the carbon issue was just a disaster for the business community and the folks that I represent in the Houston area, because EPA was having to issue permits that they don't do. And we are still working through that backlog, but I am glad the legislature decided this last session to do better.

Could you further elaborate on those comments? Why would Texas—what should Texas do to prepare?

Mr. ANDERSON. Well, in terms of the compliance, one of the problems, if the rule is adopted in the form that it is proposed or substantially in the form that it is proposed, is the 2020 interim target. I would just point out that whether it is to build a new combined cycle plant or to build transmission to integrate the renewables that would have to be integrated, you just can't get there.

We build transmission faster than about anywhere in the country, but it's still 5 or 6 years from inception to it being energized. A combined cycle power plant takes anywhere from—and this is not counting permitting—it takes anywhere from 20—from 24 months to 36 months.

Mr. GREEN. OK. I am concerned about the timeline, and that is where you ended there, the implementation timeline. And I know the Texas delegation wants to make sure that we get credit for that investment, but we also have time to build in. And that is all I ever ask EPA, if this is going to be the standard, to give us time to either capitalize it or get there, whether it is a private business or a government agency like you have.

What about the EPA's time frame concerns you the most?

Mr. ANDERSON. Again, the actual infrastructure that has to go in.

Mr. GREEN. Yes.

Mr. ANDERSON. It—they are basically asking the country as a whole, and certainly Texas, to redesign—redesign a system that evolved over 100 years and do it in 14 years or so.

Mr. GREEN. Well—

Mr. ANDERSON. That is a pretty short time frame.

Mr. GREEN. And I am out of time, but I appreciate that because—give us some time, and we will do it. But and that is true with the public sector and the private sector. If it is going to make us have cleaner air, we want to do it. But you can't do it in a short time. You have to give us some flexibility to grow into it.

Mr. WHITFIELD. The gentleman's time has expired.

At this time, I recognize the gentleman from Illinois, Mr. Shimkus, for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman.

It is great to have you all here, and I know some of you were commenting on the purpose of the hearing. But I want to put things also in perspective. I think Joe Barton raised it.

Mr. Easterly, you mentioned commissioners—you mentioned that we don't really know what the health goal is because we don't CO₂ parts per million effect on human health.

We do know what the goal of—and that is to kill coal and coal generation in this country. I mean, and I go back to the president of the San Francisco Chronicle editorial board, which he said we are going to make it so expensive that they are going to have to leave the business. So that is the goal.

This is also an example of regulators legislating. And I know my colleague, Mr. Waxman is here—who was here in 1992, carbon dioxide, this debate was part of the legislative record and was rejected under the Clean Air Act, the whole debate. Legislators, the elected representatives of this Nation, rejected that we should regulate carbon dioxide in the Clean Air Act. Hence, now we moved because of a lawsuit to the Supreme Court, which then empowered the EPA to make a, quote-unquote, “endangerment finding”—a fraudulent endangerment finding on the health and human impact where they did a global health and human impact, but not this CO₂ parts per million as you mentioned or as Joe mentioned and you kind of alluded to.

So that is why we are here, because we have got regulators legislating that is going to impact the whole country.

Mr. Danner, you make a great statement about Washington State. Please send our regards to your Governor, good friend, served on this committee. But you made an argument in response to how your State as respond. And good for you.

But using a regulatory agency to enforce rules and regulations not passed by the Congress of the United States and place that on the backs of individual States is really part of this national debate of who is really running our national government? Is it legislators with signed pieces of legislation by the President to make laws and then regulators enforcing the law? Or are we allowing the course and the regulators to now be the legislative branch and the law enforcers of our country? And so this is a bigger battle. This is example A of an excessive, large Federal bureaucracy that is out of control. And I use this all the time, as a former teacher, understanding the separation of powers. This is a perfect example of how we have lost the ability on separation of powers.

Mr. Danner, my understanding is that Washington State currently imports power from other States, including coal-fired generation. How much power do you import?

Mr. DANNER. Well, our—we are part of the Bonneville Power System, so the public utilities in Washington State, which are about half the utilities, get power from Bonneville. For the most part, that—most of it is inside Washington.

Mr. SHIMKUS. Right.

Mr. DANNER. But there are dams and other facilities outside. Our investor-owned utilities also have facilities in and out of the State. About 30 percent comes from coal plants in Montana.

Mr. SHIMKUS. So let me ask. Just let me focus on the coal. So if these coal power plants shut down, what happens to rates in Washington State?

Mr. DANNER. Actually, we go through an integrated resource planning process every 2 years where we look out—

Mr. SHIMKUS. So unchanged?

Mr. DANNER. [continuing]. Into the future.

Mr. SHIMKUS. Unchanged, if these power plants shut down?

Mr. DANNER. Well, the impact on rates right now if these power plants shut down. We are seeing that there will be rate impacts, but it will probably be—it is unclear yet. We are still going through the process—

Mr. SHIMKUS. OK. Let me go to—

Mr. DANNER. No, no. Let me—let me—

Mr. SHIMKUS. But I need to go to Mr. Kavulla. I will come back, but I am running out of time.

Mr. Kavulla, same kind of question, what do you—how would you comment if your power plants have to shut down based upon these—

Mr. KAVULLA. So one of the odd things about this, Mr. Shimkus, is that this very large facility I was referring to, the 2,100 megawatt coal strip facility, is mainly dedicated to providing power to out-of-State utilities. I don't know what the bill impact on their utilities would be. It would be substantial for Montana's share of that. Our regulated utility has a lot of undepreciated accounts associated with that coal plant.

Mr. SHIMKUS. And, Mr. Danner, if you were not shutting down your only coal-fire power plant, could you comply with these regs, even—that the EPA has passed upon you?

Mr. DANNER. No. We could not.

Mr. SHIMKUS. OK.

And Mr. Kavulla, how do you envision EPA enforcing the building block—we were talking about building block number 4—relating to increased energy efficiency. You quote in the previous testimony, "There would be thousands of consumers performing small discrete actions." What do you mean by that?

Mr. KAVULLA. I just mean that energy efficiency is something that happens when someone plugs in a light bulb, replaces their refrigerator. If a State plan includes the compliance target for energy efficiency, it may be difficult to both verify and then enforce compliance if those targets fall short. Unless there is a point of compliance, like a particular utility, it could be difficult. In my experience of measuring and evaluating the robust energy efficiency programs that Montana already has in place, the reports to measure and verify the savings run into the hundreds, almost a thousand pages. It is very—it is not like plugging on something to a power plant to measure a reduction in emissions. It is a much more difficult measurement task.

Mr. WHITFIELD. The gentleman's time has expired.

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

Mr. WAXMAN. Thank you, Mr. Chairman.

Today we woke up to see the Washington Post in this town, announced on the front page, "CO₂ rising at much faster rate report finds." Scientists have found that levels of carbon pollution in the atmosphere surged last year due to both rising emissions and the diminishing ability of oceans to absorb extra carbon dioxide. This development threatens to further speed up the already alarming rate of warming the planet.

Do any of you here today disagree that we must cut our emissions of carbon pollution to try to slow climate change?

Seeing none, I am pleased to see that State officials aren't wasting our time trying to deny the science. Unfortunately, my colleagues do that instead of you.

Some States have not only recognized the danger of climate change, but also led the way in doing something about it, including my own State of California, Washington, the Northeastern States

in the Regional Greenhouse Gas Initiative, and others. So I am pleased to have two of these States here represented, Maryland and Washington.

These States have already acted to reduce carbon pollution from power plants. EPA has used your achievements to inform the Clean Power Plan, and you can help address some of the fears and concerns that we are hearing from other States.

Commissioner Speakes-Backman, you testify with the authority of experience. Can States cut carbon pollution without economic harm? In fact, could we actually see economic benefits from the Clean Power Plan?

Ms. SPEAKES-BACKMAN. Thank you for the question, Mr. Waxman. Absolutely. We found, in our experience, that we have reduced carbon pollution in our region by 40 percent, while our economy has grown by 7 percent. That has meant a \$1.6 billion in net economic gain for our region from 2005 to 2012.

Mr. WAXMAN. Well, let me ask you, is this something that can be done only by States with very clean power generation portfolios, or can States who rely heavily on coal also cut carbon pollution?

Ms. SPEAKES-BACKMAN. In fact, Maryland is one such example that was a majority coal when we began this—when we began this work on energy efficiency, renewable energy, and participation in the RGGI States. We were 56 percent coal, and we have gone to 44 percent. Our renewables, natural gas and energy efficiency has also decreased our carbon footprint.

Mr. WAXMAN. Some States support cutting carbon pollution, but argue that their particular targets will be too hard to achieve. Every State still has the opportunity to comment on the proposal. But Washington's situation can be informative here.

Chairman Danner, you have the highest proposed target of any State, a 72 percent reduction in carbon pollution. Is this doable, and if so, how?

Mr. DANNER. Well, yes, it is doable. We are still looking at the numbers. We have questions. We have technical questions, but we think we can.

Mr. WAXMAN. And you will have a conservation standard, renewable portfolio standard?

Mr. DANNER. Yes, we do.

Mr. WAXMAN. Are these measures that you are adopting, can they be adopted by other States as well?

Mr. DANNER. Yes, they can.

Mr. WAXMAN. Another complaint we hear is that we don't know precisely how the Clean Power Plan will be implemented and thus we don't know if there may be reliability problems. My understanding is that many States have urged EPA to give them wide latitude to design their own programs.

Does anyone on the panel want EPA to reduce the flexibilities for State compliance in the final rule? I assume nobody wants that.

So let's be fair. You can't demand freedom to design your own program while criticizing EPA for not spelling out precisely how the carbon reductions will be made.

We have also heard today that it isn't clear how States should handle power markets that cross state borders. Well, one way the Clean Power Plan addresses this is to allow States to form regional

programs and give them extra time to do so. This and many other concerns we have heard today would not arise under a national market-based program adopted by Congress. But in the absence of such a program, I commend EPA for using its existing authority under the law, as upheld by the U.S. Supreme Court to propose an effective, reasonable, and flexible approach to cutting carbon pollution.

That is the end of my comments and questions, Mr. Chairman. I yield back my time.

Mr. WHITFIELD. Thank you, Mr. Waxman.

At this time, I recognize the gentleman from Nebraska, Mr. Terry, for 5 minutes.

Mr. TERRY. Thank you, Mr. Chairman.

And I do think it is appropriate to question the practicality of the rule without being accused of being a denier.

Let me just start with Mr. Easterly and Mr. Darwin. I am curious, on one of the four buckets or categories is the making fossil fuel plants more efficient. In your jurisdiction, Commissioners, what is the percentage or rate or measurability of the inefficiency of the plants that are currently running?

My—I am being sarcastic. The reality is I don't understand this bucket because I would think that all plants are trying to run as efficiently as possible. So how do they make those gains? Mr. Easterly.

Mr. EASTERLY. We are concerned about that. The power plants, there are constraints under the Clean Air Act about when you can make an efficiency improvement and not be subject to other additional requirements. But they have had, for a long time, an incentive to produce the power with the least amount of energy necessary.

Now, this rule goes on an output basis, which is good from a science standpoint, but it penalizes people, as we heard for the Regional Haze Rule and for, in our case, the Clean Air Mercury Rule. Additional emission controls that people have to put on the power plants will reduce their net output. And if you do carbon sequestration, that reduces your net output by 20 to 25 percent. So there are substantial practical problems with how you actually increase thermal efficiency of a plant.

And the other one I think you have heard in the testimony is, as you let the plant cycle up and down, they are less efficient. They are most efficient running at a fixed rate, and that is how you get your highest thermal efficiency. So we are very concerned that this is not achievable.

Mr. TERRY. Mr. Darwin.

Mr. DARWIN. I think what Commissioner Easterly said was completely accurate, and it would apply in Arizona as well.

Mr. TERRY. All right. Then this question is for Commissioner Speakes-Backman and for Commissioner Kavulla. So, in your respective opinions, has the EPA done a sufficient analysis of natural gas infrastructure to assume that existing natural gas plants can be run at a 70 percent capacity factor, question number one, and did the EPA reach out to your State to determine whether sufficient natural gas infrastructure is available to meet the demand for natural gas electric generation?

Commissioner Speakes-Backman.

Ms. SPEAKES-BACKMAN. Thank you, sir, for the question. I think the 70 percent capacity factor is part of that. The building block is a question actually that we do have on it from a technical basis.

Mr. TERRY. OK.

Ms. SPEAKES-BACKMAN. So I think it is a fair question. I am ultimately saying that I agree with the fact that the rule is sound, that the structure of it is sound, but there are questions still that we have on a technical basis, including the natural gas capacity factor of 70 percent—

Mr. TERRY. OK.

Ms. SPEAKES-BACKMAN. [continuing]. And the ability to get natural gas into the Northeastern and Mid-Atlantic region.

Mr. TERRY. I appreciate that. Commissioner Kavulla.

Mr. KAVULLA. I am happy to say I agree with the Commissioner.

Mr. TERRY. All right.

Mr. KAVULLA. I think this is a big technical question, and it rises to the level of probably being in the top 5 or 10 problems outstanding with the rule.

To answer you directly, no. It is my understanding that the EPA has not conducted either an electric transmission or a gas transmission reliability analysis of its best system of emission reduction.

Mr. TERRY. All right.

Ms. SPEAKES-BACKMAN. Sir, I would just like to add to that. Although I am not sure if they did their own reliability study, I do know that the Organization of PJM States are working to get a modeling done on reliability and cost impacts.

Mr. TERRY. All right.

Ms. SPEAKES-BACKMAN. I think that is part of working together on this rule that is so important.

Mr. TERRY. And determining what the State's infrastructure is for natural gas is part of that, I would assume?

Ms. SPEAKES-BACKMAN. Absolutely.

Mr. TERRY. Mr. Kavulla, yes? You are nodding yes.

Mr. KAVULLA. Yes.

Mr. TERRY. I will answer for you.

Then, in my last 60 seconds, how will wind and other renewable generation be treated with regards to out-of-state sale of electricity? Under the proposed rules, States using the renewable energy will get the credit, but not the States generating it. Can credit be given using renewable energy certificates? And to the same two speakers. Commissioner Speakes-Backman.

Ms. SPEAKES-BACKMAN. Well, sir, I think your questions are brilliant. It is one that we have as well, as to who gets the credit.

Mr. TERRY. Yes.

Ms. SPEAKES-BACKMAN. Is it the generating facility or is it the facility with the demand—or the state of the demand? I think it is an excellent question, one that we still have outstanding.

Mr. TERRY. OK.

Mr. KAVULLA. I agree with the commissioner. This is a major ambiguity and even a point of self-contradiction in the proposal. I will say, as I put forward in my written testimony, that a State like Montana is assessed with all of the penalty associated with carbon from emitting generators that export to other States. I would hope

that we would get the credit from renewable generators that are intended to offset or green the portfolio in our State.

Mr. TERRY. All right. Thank you. My time is up.

Mr. WHITFIELD. At this time, I recognize the gentle lady from California, Mrs. Capps, for 5 minutes.

Mrs. CAPPS. Thank you, Mr. Chairman, for holding this hearing and to our witnesses for your testimony, each of you.

You know, it is no secret that carbon emissions from the power sector are causing our planet's climate to change in an unprecedented rate. We know the communities across the country are already experiencing the impacts of climate change. My State of California, our farmers and ranchers and businesses, are suffering due to the severe drought, and consumers are now paying higher prices for food.

Even if you attribute some of this to cyclical changes, you can't deny that communities across the country are facing damaged infrastructure and erosion from extreme weather of all kinds and sea level rise. These impacts have very real costs for consumers and our economy as well.

Mr. Danner, would you elaborate on this, please. How is climate change impacting our public infrastructure and who ultimately pays for these costs?

Mr. DANNER. Well, I think that you mentioned some of them. And I mentioned them in my earlier testimony. Sea level rise is something that is going to affect us. We are going to have to relocate businesses and homes that are located on shorelines. We are going to have to harden our seawalls and our shipping facilities.

I mentioned before that the pine bark beetle infestation is growing because we have longer summers now and that we don't have the winter die-off of the insects. And this is going to effect our lumber industry. We are having more forest fires. That affects not only the lumber industry but the recreation industry. And so we are going to be seeing more of this.

Our shellfish industry is actually under a severe attack right now—

Mrs. CAPPS. Yes.

Mr. DANNER. [continuing]. Because of ocean acidification, the shells won't form in the young oysters. And, of course, the ski resorts. It is going to have an impact on urban water system. It is going to have a supply on salmon. It is going to have a supply on fishers, and so—and irrigators. So there are going to be a lot of impacts down the road, and some of them have started already.

Mrs. CAPPS. Thank you.

And, Ms. Kelly Speakes-Backman, climate change is making, as we just heard some of them, and creating significant costs for consumers and our Nation's infrastructure. The American people are frustrated—many of my constituents are—by the lack of action in Congress to address these issues because they understand that these costs will only increase in the future if we don't take action now to combat climate change.

How do you view the long-term costs—and I am speaking now long-term costs of climate change compared to those existing under carbon reduction plans, such as the Regional Greenhouse Gas Initiative?

Ms. SPEAKES-BACKMAN. Thank you for the question.

We look at not only the direct energy cost, but we look at, when we are analyzing the costs and benefits of energy, some of the external issues, such as the diminished spending that residents are taking because they are taking on energy efficiency programs.

And we use these energy efficiency programs within the Maryland Public Service Commission by making sure that they are cost effective. So we have a very rigorous analysis, a recorder, of what is a cost-effective energy efficiency program. And we have thereby done—we have thereby decreased the impact to consumers by 1.5 percent in Maryland with respect to the RGGI programs.

Mrs. CAPPS. So regulating carbon pollution now not only helps avert some high cost of climate change. It also creates direct benefits for consumers.

Would you go on to say—briefly, so I can ask others as well—what benefits have consumers in Maryland seen from your efforts to reduce carbon?

Ms. SPEAKES-BACKMAN. Well, I am going to have to look up my notes because we have quite a few to list out. And I believe I have them in my written comments.

In Maryland, we invested \$230 million up through last year. And the reinvestment of the auction proceeds from RGGI have helped more than 104,000 low-income Maryland families pay their energy bills. It has helped energy efficiency upgrades of 4,320 low-income apartments alone. And that is not to mention 3,100 families and 106 businesses in Maryland to install solar, wind, and geothermal systems.

Mrs. CAPPS. So, Mr. Danner, just nod or say yes or no in answering. You have seen similar benefits in Washington? And then a follow up to both of you. Do you think consumers will continue to see these benefits under EPA's Clean Power Plan?

Mr. DANNER. Yes and yes.

Mrs. CAPPS. Yes and yes.

Ms. SPEAKES-BACKMAN. Yes and yes. And, in fact, Regional Greenhouse Gas Initiative, we just initiated some changes to our program which will—what we think these changes will do are they will project—they are projected to add an additional \$8 billion into our gross regional product.

Mrs. CAPPS. Thank you very much. I yield back.

Mr. WHITFIELD. The gentlelady's time has expired.

At this time, I recognize the gentleman from Ohio, Mr. Latta, for 5 minutes.

Mr. LATTA. Well, thank you very much, Mr. Chairman, and thanks very much for holding this hearing. It is another good hearing. Thanks very much to all of our witnesses for being here.

It is kind of interesting because, when I look around this committee room with the members and the States that they represent, the national manufacturers, I was looking at the States with the highest and lowest shares of manufacturing employment, many are represented in this room. Indiana being—being number one. Michigan being at four. And I hate to admit it, after saying that, since I border both those States, that Ohio is number seven.

But it also points out the fact that there is another CNBC report that came out, the top four States in 2009 and 2013 for manufacturing job creation: Michigan, Texas, Indiana, and Ohio.

And when the testimony was given by Mr. Easterly talking about your co-usage in the State, I know that I had a report done several years ago that you are still at over 80 percent coal—Ohio is over 70 percent—and what would do to our manufacturing base in our respective States. Because, again, bordering both Michigan and Ohio, I know—because I am out in my district all the time and going through manufacturing plants, I have got people working in both those States and visa versa. So we want to make sure that people are out there working and that they are employed.

And if I could, just run down the line with everyone, just ask questions real quick and try to get responses because I would like to ask several questions to everyone. And this is for all—for everyone, that the EPA's proposed Clean Power Plan rule assumes the rule would be finalized by June 2015 and States will file their initial compliance plans by 2016.

And starting with Mr. Kavulla, if I could with you—and we will just go right down—would development of the State implementation plan require time and significant coordination among different State agencies? And if yes, which agencies?

MR. KAVULLA. Certainly, it would require coordination between the Public Service Commission, the Department of Environmental Quality, the self-governing electric cooperatives, and public power entities of the State of Montana, possibly the Governor's Office, the Department of Commerce, the utilities themselves, which are not agencies. And then if there was to be a multistate plan, since we do have these large exporting generators possibly with the Washington Utilities Transportation Commission, the Oregon Public Utilities Commission, the Idaho Public Utility Commission, a variety of others, perhaps as many as a dozen or two dozen.

MR. LATTA. Thank you.

MR. DANNER. Yes. Thank you.

We are already meeting with our State Department of Commerce and our Department of Ecology. So interagency coordination is already underway, and we are working with our regulated utilities and other stakeholders.

MS. SPEAKES-BACKMAN. We are also currently working with our Department of Environment. We also coordinate certain energy issues with the Maryland Energy Administration, which is our energy office. We also need coordination with other States because we will be participating. As EPA has recognized RGGI as a compliance mechanism, we will be coordinating with eight other States in Maryland.

In addition, we will be coordinating with our ISO and our fellow States within the PJM Region to understand what this means for our reliability and our cost structures.

MR. LATTA. Thank you.

MR. DARWIN. I think, in Arizona, it is much of the same. The only thing I would add—and this is not unique to Arizona—is that we will have to go before our State legislature as well. And that is, at times, a time-consuming process on educating them on the issues and making—helping them make an informed decision. And having

to develop a plan so quickly puts us in a very difficult situation of having to get the decisions from them on such a time frame.

Mr. LATTA. Thank you.

Mr. EASTERLY. We both need to coordinate with our utility regulators, our utility consumer counselors, our MISO, our Midwest States ISO. And we have this group called the Midcontinent States Energy & Environment Regulators to try and figure this out for all of us. But we have an 18-month rulemaking process. You usually get 3 years to develop a plan. We can't do it in a year.

Mr. ANDERSON. Whatever is ultimately adopted is likely to require a change in law with Texas State law. Our legislature only meets every other year in odd number years. This next year, it meets in January until the end of May. The rule doesn't come out until afterwards. The next time they meet won't be until 2017. It will make coming up with a plan and actually get the authority to implement it a challenge. And then we have the same problems with respect to the 2020 deadline of actually doing anything meaningfully in order to get to the first threshold.

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

My time has expired, and I yield back.

Mr. WHITFIELD. The chair at this time recognizes Mr. Tonko of New York for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair.

Chairman Danner, Commissioner Anderson has raised an issue that I have heard raised many times in the context of debates about carbon pollution and how the problem should be addressed, if it is to be addressed at all, and that is fairness. I think carbon pollution must be addressed for the reasons you have stated in your testimony. The social, the environmental, and the financial consequences are severe already and will become worse if we don't act now.

Commissioner Anderson points out correctly that Texas, like a number of States throughout the country, has taken steps to diversify energy resources, improve efficiency, and lower carbon emissions. Your State is one. New York is another.

Some States, however, have done very little. With this rule, EPA has proposed steps that require all States to take action, as we have heard here. Something that I believe is not only fair, but long overdue. But the rule doesn't offer a lot of credit to the States that have already taken action.

My question is, should this proposal be revised to require more reductions of the States that have historically done little and be a bit more lenient in the targets for States that have already been doing their part to address this national and global problem?

Mr. DANNER. Thank you for the question. I—yes. We are—in our comments, we will be making the case that we think that we—that States that have been early adopters whose citizens have already paid for some of this energy efficiency and renewable energy should be getting credit for it in the standard that EPA sets.

Mr. TONKA. And, Commissioner Speakes-Backman and Commissioner Anderson, would you also like to comment, please?

Ms. SPEAKES-BACKMAN. Yes, sir. I agree that we will be making comments, not only on whether or not we agree with the specific baseline of 2012, but is a single year the proper analysis? Perhaps

2012, if some of us recall in the Northeast and the Mid-Atlantic States, perhaps 2012 as a specifically stormy year due to extreme storms was not perhaps the best—it was an anomaly. And so we are going to ask those sorts of questions.

But we are also going to ask questions around whether early actions are being properly credited.

Mr. TONKA. Commissioner Anderson. Thank you.

Mr. ANDERSON. Well, it is probably surprisingly, but I agree with my colleagues. I believe that the early adopting States——

Mr. TONKA. Thank you. I recognize——

Mr. ANDERSON. [continuing]. Not get credit.

Mr. TONKA. OK. Thank you.

And I recognize that we have a variety of views about EPA's proposal being represented on our panel here today. EPA took considerable time in developing this proposal, and I understand the Agency did conduct extensive outreach and sought input from many of the industry, the regulatory community, and in different regions and States.

I would like each of you to comment about that process itself. If you weren't contacted by EPA, did you make an effort to reach out to EPA? Any of you that——

Mr. ANDERSON. We did in response to solicitation generally. In Texas, our environmental agency, as well as the commission, we filed joint—last spring, joint early comments.

Mr. TONKA. Anyone else? Any of the other States?

Mr. EASTERLY. EPA certainly spent time with, I would say, all of the State environment regulators. But at the end of the day, they didn't take all of our advice. I think that is a fair way to put it.

Mr. TONKA. OK. So you were—there was an interaction, though?

Mr. EASTERLY. Yes, there was.

Mr. TONKA. And the same is true with Commissioner Darwin?

Mr. DARWIN. Yes. We met with EPA and our Corporation Commission met with EPA prior to the proposal.

Mr. TONKA. Do your organizations believe that some action at the national level is needed to address carbon emissions or not?

Mr. DANNER. Yes.

Ms. SPEAKES-BACKMAN. Yes.

Mr. EASTERLY. I still believe we need a plan. We are doing scatter-shot actions that don't fit together to achieve any particular goal and is putting certain, in our case manufacturing, at risk without a plan to actually make a difference across the country.

Mr. TONKA. So is that an answer—to have a carbon emission plan, should there be a national plan?

Mr. EASTERLY. There needs to be a plan. As people have said, the CO₂ continues to increase a couple of parts per million a year. This rule, for all of its pain, will cut that by less than 1 year's increase. So it is really not going to make a big difference until we figure out how we are going to get our arms around the whole issue.

Mr. TONKA. So you are saying yes to a national plan that really reduces carbon emission tremendously?

Mr. EASTERLY. And we have to say what that plan is and the costs——

Mr. TERRY. OK.

Mr. EASTERLY. [continuing]. And benefits of that compared to not doing it.

Mr. TONKA. OK. So, in other words, a proposal—a national proposal to reduce carbon emissions would be acceptable to your organizations?

Ms. SPEAKES-BACKMAN. Yes, sir.

Mr. DANNER. Yes——

Mr. KAVULLA. I am not—I am not sure what that is without knowing the details, Mr. Tonka.

Mr. TONKA. Well, a national plan is a national plan to reduce carbon emission. The concept, is that something that is worthy and required——

Mr. KAVULLA. I mean, the——

Mr. TONKA. [continuing]. At a national level.

Mr. KAVULLA. The present national plan attempts to address an intractable problem of geopolitics with a goal that, even if realized, would result in miniscule reductions and no real benefit.

Mr. TONKA. That is this plan. But, ultimately, should there be a national plan to reduce carbon emission?

Mr. KAVULLA. It is a real problem, and it needs to be addressed either national or international treaty level.

Mr. TONKA. Thank you, everyone.

Mr. KAVULLA. To make——

Mr. WHITFIELD. The gentleman's time is expired.

At this time, I recognize the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. OLSON. I thank the chair.

And welcome to our witnesses. A special Texas howdy to Commissioner Anderson.

Following the example of Chairman Emeritus Dingle, my question would be yes-or-no questions on basic issues.

So, first of all, yes or no. And I will start with you, Commissioner Anderson. Do you believe that this rule as currently written is workable for Texas, yes or no?

Mr. ANDERSON. No.

Mr. OLSON. No.

Commissioner Easterly from Indiana, yes or no?

Mr. EASTERLY. We haven't found a way to meet it yet.

Mr. OLSON. Director Darwin from Arizona, yes or no?

Mr. DARWIN. No.

Mr. OLSON. Commissioner Speakes-Backman, Maryland?

Ms. SPEAKES-BACKMAN. Yes.

Mr. OLSON. Yes.

Chairman Danner, Washington?

Mr. DANNER. Yes.

Mr. OLSON. And Commissioner Kavulla——

Mr. KAVULLA. No.

Mr. OLSON. [continuing]. Montana? No.

OK. Next round of questions. Two of you said yes, Maryland and Washington.

But Commissioner Speakes-Backman and Chairman Danner, do you recognize why these four States—Texas, Arizona, Indiana, and Montana—might not agree with you a little bit different? Understand why they are opposed?

Mr. DANNER. Yes. I understand. But they are raising technical issues that I think are similar to some of the issues that we have, but these are issues that we are going to put in our comments. And we don't see them as any reason to delay consideration of this proposed rule, which is, at this point, just a proposed rule.

Ms. SPEAKES-BACKMAN. I would agree with that. I think I have agreed with some of my colleagues up here at the table on some of the specific technical issues that they have asked, especially the Honorable Kavulla. That was fun.

But I also think that there is a big difference between the four building blocks that they have laid out in terms of how to meet this specific goal and the structure of the plan and the mechanism of compliance. And I think that mechanism of compliance and how they set this out is structurally sound.

Mr. OLSON. OK. So it sounds like you understand their rationale why this program doesn't work for these new rules, maybe unworkable, again, for Texas, Arizona, Indiana, and Montana. For Maryland and Washington State, all go forward?

Mr. DANNER. Well, I am not going to speak whether it is workable for them or not.

Mr. OLSON. OK.

Mr. DANNER. I know they are making a case that it is not, but I have to look into it more.

Mr. OLSON. OK. That is what I was trying to understand.

Another question, starting again with you, Commissioner Anderson: Do you agree that this rule will add to the reliability challenges facing the grid in Texas?

Mr. ANDERSON. It has potential, particularly, if we utilize the expansion of renewables, just because of the tremendous variables that occur. And, in fact, it will require more gas to back that renewable up, which will in turn increase the amount of carbon emissions.

Mr. OLSON. Mr. Easterly, Indiana's perspective?

Mr. EASTERLY. Yes. We are going to lose an amount of generation that we don't have a way to replace.

Mr. OLSON. Director Darwin, Arizona?

Mr. DARWIN. It is not my area of expertise, but from what I have been told, if the rule is finalized as proposed, it would create reliability concerns.

Mr. OLSON. And Commissioner Speakes-Backman, Maryland?

Ms. SPEAKES-BACKMAN. I believe that we are already facing reliability and resilience issues related to climate change and related to other external threats and forces that we need to pay very close attention to. And utility regulators, economic regulators are well suited to work on those issues.

Mr. OLSON. And Chairman Danner, Washington State.

Mr. DANNER. I think I already answered the question.

Mr. OLSON. I thought so.

Commissioner Kavulla, Montana?

Mr. KAVULLA. Simply put, no reliability analysis has been conducted for the western interconnection by the appropriate bodies, so I am unable to reach any conclusions for a variety of—

Mr. OLSON. Yes. And your testimony said you cannot state studies of that because it hasn't been addressed. Isn't that a real big problem?

Mr. KAVULLA. My speculation——

Mr. OLSON. [continuing]. If you set a goal for 2015, a major problem, huh?

Mr. KAVULLA. My speculation would be that it would, but I am not a transmission engineer and no study has been performed, sir.

Mr. OLSON. I am not one either, so thank you for your answer.

One final yes-no question, again, with you Commissioner Anderson. In the mercury rule, EPA included a reliability valve to pause the rule's implementation if the grid is threatened. Should they consider that system now for this rule, this new rule, yes or no?

Yes or no?

Mr. ANDERSON. Yes, they should.

Mr. OLSON. Mr. Easterly, Chairman?

Mr. EASTERLY. Yes.

Mr. OLSON. Dr. Darwin?

Mr. DARWIN. Yes.

Mr. OLSON. Commissioner Speakes-Backman?

Ms. SPEAKES-BACKMAN. I think it is worthy of consideration.

Mr. OLSON. There we got another yes. Chairman Danner?

Mr. DANNER. I actually think they already have some processes where they can review decisions they have made and make alterations, but I think it is something that should be looked at.

Mr. OLSON. Thank you. And my final question again, this one for Mr. Anderson, my home commissioner.

As you know, Texas has made huge changes to our grid. Coal plants have been closed and the existing ones are among the most efficient in the country. We built the most winded America and the power lines to move it. We have increased our use of natural gas, and last Friday, regarding CO₂ emissions, I helped break ground on the project in my home district called "The Petra Nova Project." It is a project from NRG where they are going to get—they are actually going to tap into a power plant there, capture CO₂, 90 percent captured, put down a pipeline, goes 80 miles downstream and being used to produce more oil, and that is what is happening there in Texas.

So my question is, and this is about carbon, CO₂ emissions. You mentioned ERCOT, as a really efficient market you said the words ruthless, and our generators have risen to the challenge. If EPA said to the state of Texas, good work, now go reinvent your fleet again?

Mr. ANDERSON. I would just point out that—and this is in a study that was released by the Energy Information Agency this month that between 2000 and 2011, Texas had the largest reduction in CO₂ emissions in the country by metric ton, over 9 percent, and actually accounted for, during that same time period, of over 13 percent of the Nation's reduction in CO₂, all while the economy grew by over a third in Texas.

So it is—I go back to, it is not like we are not doing anything. It is not like Texas has buried its head in the sand. We have made enormous investments in order to get more efficient, and the EPA now is asking us to double down.

Mr. OLSON. It is not just CO₂. It is——

Mr. WHITFIELD. The gentleman's time is expired.

Mr. OLSON. Ozone—I am sorry, Mr. Chairman, a couple of points. Ozone, sulphur dioxide and nitrous dioxide as well. We reduced those emissions dramatically, half the national average, double the national average.

I yield back. Thank you.

Mr. WHITFIELD. At this time I recognize my colleague from Kentucky Mr. Yarmuth for 5 minutes.

Mr. YARMUTH. Thank you very much, Mr. Chairman. I thank all the witnesses for a very interesting discussion.

You know, Mr. Shimkus took us back down memory lane to talk about what happened back in 1992 and so forth in the Congress and also subsequently in the courts, but he stopped before 2009 when we actually debated this very subject in the context of the Waxman-Markey legislation.

And I raise that because at the time, with many of us from states that derive most of their energy from coal, Kentucky derives 92 percent of its energy from coal, we are very concerned to make sure that any proposal that dealt with carbon emissions did so in a way that didn't affect our consumers and our businesses and our economy, and we worked very diligently to shape that proposal in a way that I think accomplished that.

Of course, it passed the House, was killed by the Republicans in the Senate, which is why we are here now, why EPA had to act without congressional activity and when I was considering that bill in 2009, what I was saying to my constituents was I wasn't sure we could trust EPA to be particularly sensitive to Kentucky's situation and Indiana's situation and Illinois and so forth, so I thought it was better to work through the legislative system, but what I have actually gleaned from the testimony today is that EPA actually has been pretty responsive to the individual needs of states.

Mr. Kavulla, you said they have. Mr. Darwin, you said they had, and I know that was the case in Kentucky because Kentucky submitted a plan for reducing carbon emissions in our state and as a way of encouraging EPA to provide flexibility and show how we could do it, and I think our officials in Kentucky are relatively satisfied that they do have the flexibility to create a plan that will accomplish both significant reductions of carbon emissions without—and not hurt our economy.

And I was interested to hear Mr. Danner talk about job creation. I think you said about 3,000 jobs attributable to this program in Washington?

Mr. DANNER. To renewables, and to conservation is more like 37-and-a-half thousand.

Mr. YARMUTH. That is great. And I am not sure, Commissioner Speakes-Backman, that you mentioned employment estimates if there are any. I know you talked about economic impact, but you have any measure of job creation?

Ms. SPEAKES-BACKMAN. Yes, sir. In our region, we have 16,000 job years.

Mr. YARMUTH. Sixteen. Which is interesting to me because again, back in 2009, I was talking about—to our state officials and our energy cabinet then, they were neutral on the legislation. They did

not take a position on Waxman-Markey. But they said they thought that if it were passed, that it would mean tens of thousands of new jobs in Kentucky.

So I think what your experiences have shown and what at least our states' estimates were is that we can do this without not just not hurting the economy, we can actually stimulate the economy.

And this goes to something that I am very much interested in, and that is, we have had a discussion just in the last few minutes about, you know, the impact on overall carbon emissions and whether this is just a drop in the bucket throughout our country and the world.

But is there anybody who doubts that if we were to—if we do something significant in this area, whether it be something like a cap and trade under Waxman-Markey or the EPA proposal, whatever it ends up, the rule, whatever it ends up being, that this will set off a new era of innovation and experimentation that will ramp up at a much faster rate the reductions that we can achieve? Mr. Danner, you look like you are poised to answer.

Mr. DANNER. Yes. I mean, we have already seen that, too, because all this investment has led to innovation, and you are seeing more distributed generation, more rooftop solar. The price of solar has come way down. The price of wind has come way down, and we are seeing that the conservation is even going down, so we are seeing it over and over and over again.

Mr. YARMUTH. Ms. Speakes-Backman.

Ms. SPEAKES-BACKMAN. I would just agree with Mr. Danner in that we have seen new technologies, we have seen new applications, not even just by the end user but from our utilities themselves. They are looking at new ways to increase efficiency on their distribution grid.

Mr. YARMUTH. OK, well once again I appreciate all of your input and your work. Thank you for your service.

And I yield back, Mr. Chairman.

Mr. WHITFIELD. Thank you very much. At this time I would like to recognize the gentleman from West Virginia, Mr. McKinley for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman, and thank you to the panel for your patience in dealing with all this today.

What I would like to do is ask unanimous consent that this, for the record, Mr. Chairman, this is a petitioner's motion to set a consolidated briefing schedule and expedite consideration of the lawsuit dealing with this measure.

Mr. WHITFIELD. Without objection.*

Mr. MCKINLEY. Thank you.

Mr. Chairman and for the rest of you, it is—what I have heard here not only on this rule, this proposed rule but so many other rules that we have had before us in this committee, shows the big divide in America over this, and I am—not only on this one but the rational consolidation of this and the implementation of it, but all these rules that the EPA is proposing.

*The information has been retained in committee files and is also available at <http://docs.house.gov/meetings/IF/IF03/20140909/102623/HHRG-113-IF03-20140909-SD010.pdf>

I thought when the President ran that he was saying he wanted to unify this country, that there wasn't going to be a red state and a blue state but we were just going to be an American state and we were all going to work together, but yet I see one rule after another dividing us, and I don't see anything coming from this rule that unifies us.

It just causes more division, and quite frankly, I think it is policies like this that are thrown out that maybe are ill-conceived, maybe there is shortcomings with it, that long term, maybe there is some advantage to it, but it feeds into that, that attitude of America, of the dysfunction in Congress and distrust of government. It fuels that, and I have got—I would love to see how can we work together rather than proposing these things that we know are contradictory.

But there is a phrase that Speaker Boehner uses often from—he is quoting—paraphrasing a fellow by the name of Maxwell who says, “He who thinks he leads but has no followers is merely a man taking a walk,” and I think that is a little bit of what is going on now because the rest of the country or the rest of the world doesn't seem to be following our lead. If we want to address this, that is fine, that is a noble thing, but the rest of the world is saying we are not buy into this.

When China is saying they are going to increase their CO₂ emission by 60 percent, in India by 50 percent, in Germany, switching over from nuclear to coal, 22 power plants, the rest of the world is out there, and then you have to couple that with the fact that, the sheer numbers. I must be missing something as an engineer in Congress because I know that if we totally stopped the burning of coal all across America, not just cut down the CO₂, just stop burning coal, stopped it totally, the total CO₂ emission around the world, manmade CO₂, anthropogenic, would only decrease by $\frac{2}{10}$ ths of 1 percent.

Now you are saying on this, what this President is doing in this proposed rule, he says I want to reduce it by another 30 percent. 30 percent of $\frac{2}{10}$ ths is $\frac{6}{100}$ ths of 1 percent, and we are trying to say that is a measurable benefit to our—the world and our economy by reducing it by $\frac{6}{100}$ ths of 1 percent? All I can think is—so, I really want to get back to you from Montana because you talked in the morning another direction with this.

I was listening to Barton talk about 10 percent of the power in America comes from Texas. Well, West Virginia is not far behind. We are 5 percent of all the power in America comes from West Virginia, 97 percent of that is produced by coal.

We export 56 percent of the power that we create in West Virginia. I don't know how we are going to comply without someone getting hurt. Some jobs are going to be lost in West Virginia when 97 percent is produced by coal.

So my question to you, Mr. Commissioners, what picture do you—what would you suggest will look like West Virginia if we have to embark on this and reduce our CO₂ emissions in West Virginia by 30 percent?

Mr. KAVULLA. I have not studied—

Mr. MCKINLEY. Or 20 percent, whatever that final number is?

Mr. KAVULLA. Right. I mean, the job implications for producing states like yours and mine are no doubt significant.

Mr. MCKINLEY. Are we doing to lose jobs?

Mr. KAVULLA. Well, certainly, if it resulted——

Mr. MCKINLEY. I would be——

Mr. KAVULLA. [continuing]. In a coal plant closure, absolutely.

Mr. MCKINLEY. Is it—can you think—is it really measurable around the world? I want to work on climate change. I acknowledge there is climate change. I just want make sure we are following the right plan and quit just making a simplistic approach at attacking coal as the simple answer to this, because if it is only we are going to reduce 6/100ths of 1 percent of the emissions of the globe, I don't know that that is worth the risk that we are putting to our economy, especially here in the United States, and more provincially, in West Virginia, the First District of West Virginia.

Mr. KAVULLA. I agree with you, Mr. Congressman. I don't know if the energy efficiency jobs, the renewable jobs would be nearly enough to offset what we would lose in terms of producing jobs, and I don't know about the second tier, third tier effects on things like manufacturing that rely on that energy production. I just don't know.

Mr. MCKINLEY. I have run over my time, but thank you, Mr. Chairman, for——

Mr. WHITFIELD. The gentleman's time is expired.

At this time I recognize the gentlelady from Florida, Ms. Castor for 5 minutes.

Ms. CASTOR. Thank you, Mr. Chairman, and thank you to all the witnesses for being here today.

About 3 weeks ago, a number of the top climate scientists in Florida sat down with our Governor Rick Scott and urged him and state leaders in Florida to take action to reduce carbon pollution. They said if we do not, we are going to face some very serious costs and consequences. They pointed out the potential consequences to our tourism industry, to our barrier islands and our beaches from the rising sea levels, danger to our drinking water supplies from saltwater intrusion.

Remember, Florida is a fragile peninsula, to our local infrastructure, the pipes, the water pipes, wastewater pipes that cost our local governments quite a lot to maintain, from sea level rising and flooding. So the scientist said we can't wait, we have to act now. Unfortunately, Governor Scott shrugged off their advice. This seems particularly unwise for a state like mine that has such great vulnerabilities.

I want to know, Commissioner Speakes-Backman, how difficult will it be for a state to achieve goals under the Clean Power Plan if a state resists, if it delays, if it ignores carbon pollution reduction? It seems like it could end up costing the citizens of my state a whole lot of money.

Ms. SPEAKES-BACKMAN. There is absolutely a cost to inaction, and that is measured through a number of different areas. There are environmental causes, there are public health problems that arise. There are also costs to consumers on the loss of energy and electricity in their systems, the loss of water.

We are in the midst right now of evaluating and giving a dollar value to that, those losses. What does it cost a customer to be out for 4 days, 5 days, 10 days because of a major storm? We have worked through these issues in practicality, unfortunately, and so this is something that I think is absolutely important for us to consider when we are looking at what the cost is.

Ms. CASTOR. And another reason for Florida and other states not to delay is that I think the Clean Power Plan is likely to create jobs, particularly in clean energy and energy efficiency technologies. I see a great benefit to my local economies. We are the sunshine state and yet we produce less solar power and have less jobs in renewable energy than Georgia and New Jersey and other states. That seems backwards to me.

And energy efficiency under the Clean Power Plan is one of the important building blocks. Chairman Danner, you have discussed all of the great work in Washington state. Could you talk a little bit more about how long your state has been at it to improve energy efficiency and reduce demand, and even though you have made good progress, can you do more?

Mr. DANNER. Thank you. We have been at it for—well, the voter initiative was in 2006, and so we have had measures before that, but 2006 is when we really got going, and I think that our compliance with the Clean Power Plan is going to be so much easier because we got a headstart, that we were able to work ahead, and it just—it is part of our culture in Washington state now.

And the job numbers that I talked about earlier, we got a headstart on that, too. We are really seeing the benefits. But we do have more to do. The test for conservation is we want it to be cost-effective and so the fact that our—we have a hydro-program so our energy costs are actually lower in Washington, we have less room. In some of the states that have higher costs of power, there is a lot more room for cost-effective conservation.

Ms. CASTOR. And the best thing about energy efficiency, and Commissioner Speakes-Backman, you talked about this in Maryland and with the RGGI plan, is that it can be a win-win situation for states and consumers, you can actually put money back into the pocket of consumers.

One of the issues is that in many states, the business model for electricity is backwards now. It does not reflect the challenges that we face in the reduction of carbon pollution, and somehow many other states are going to have to realize their model is upside down. They have got to incentivize conservation and energy efficiency rather than the sale of the kilowatt hour; isn't that correct?

Ms. SPEAKES-BACKMAN. It is the least cost resource that we have, to turn things off and to use energy more efficiently, so absolutely I would agree with you 100 percent.

Maryland itself is on a path to decrease its energy use per capita by 15 percent by 2015, and the RGGI states themselves, we will reduce carbon. We are on a trajectory, because of the 2014 changes that we have made in our program, we are on a trajectory to reduce our carbon from power plants by 50 percent by 2020. So, it is possible, and we are reinvesting those dollars that are—those revenues that are being generated back into an energy system which is making it a positive for our states.

Ms. CASTOR. Thank you very much.

Mr. WHITFIELD. The gentlelady's time is expired.

At this time I recognize the gentleman from Virginia, Mr. Griffith for 5 minutes.

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

I do appreciate that and appreciate the witnesses being here.

I will tell you that I share some of the concerns that Representative McKinley raised in his questions about the cost of jobs and the indirect jobs related to the manufacturing facilities whose electric prices go up, but the manufacturers, whether they are in this country, or in another country will figure out a way to get their energy at a reliable, reasonable cost.

Mr. Easterly, I noted that in your testimony you indicated that there were real concerns in Indiana, and I share those concerns representing southwest Virginia, that it is not the wealthy, it is not the big manufacturers who will pay first as the electric prices go up after wave after wave of new regulations have been applied to them by this EPA, but that the poor, the elderly, and most vulnerable in our society, I am looking at your comments here that are written, will be the ones that will pay first and that they are going to end up having their utility bills raised.

And then I think in your oral comments you made some reference to concerns about people having their power turned off because they couldn't pay their bill, and then the costs that might be associated with that when they don't have the best of health or otherwise. Could you expand on that, when there are concerns and these rates go up?

Mr. EASTERLY. Every winter at least—actually, I know it happens more than just in Indiana. There are people that didn't get their electricity reconnected the summer before and they—some of them die. And similarly in the summer, I remember in Illinois in the late 1990s, and the heat wave, 700 people died because of heat. We know as a society what to do. Air-conditioning is absolutely available and power is available, but it is an economic issue.

Mr. GRIFFITH. It becomes an economic issue, and you know what is really sad about this is that when we first started discussing this when I was first elected, Lisa Jackson, who was then head of the EPA, came in and I said to her when you made a health determination that CO₂ was dangerous to health, and she talked about how the temperatures would go up and that would cause problems, I said, did you ever think about the people who won't be able to afford to heat their homes in a cold winter? And she said, well, we have programs to take care of that.

In my area, and I have talked to a number of people about it, typically, particularly in a cold winter, that money starts running out around the end of February, first part of March. Has that been your experience as well?

Mr. EASTERLY. As I understand it, but I don't actually run that program.

Mr. GRIFFITH. I understand, but you—anecdotally, you have heard of that happening. That creates some concern for me as well.

When we add these new regulations, you also referenced in your next paragraph another thing that I have been concerned about. The possibility as we lose more facilities that are generating elec-

tricity, particularly with the new rules coming on that are putting a lot of pressure on the coal-fired power plants, that there is a real possibility or you indicate there might be reliability issues, and in parenthesis you said brownouts.

I am concerned about rolling brownouts. Do you have that concern as well?

Mr. EASTERLY. Yes, we have that concern. I think you heard it from most of the interconnects here.

Mr. GRIFFITH. I have. And it raises another issue that has come up this year in my district and in other parts of Virginia. There are two different companies trying to build gas pipelines, and of course, the communities are concerned, and sometimes I think the EPA thinks that these pipelines can just pop up without any trouble.

Of course, you have got to go through all kinds of regulations, both EPA regulations, local regulations, state regulations, and so forth to build a new gas pipeline in the area, and I am wondering if any of you-all have experienced that in your state?

I guess Texas has got plenty of pipelines, but are you experiencing difficulties where even where people want to use the natural gas, there is difficulty in putting the pipeline in, or in relationship to manufacturers, we have noticed that sometimes the manufacturers want the natural gas but they are not on the short list to get a natural gas pipeline put in. If each of you could answer that, starting with you, Mr. Anderson?

Mr. ANDERSON. We really don't have a shortage of gas infrastructure in our state or electric infrastructure as a general rule.

Mr. GRIFFITH. All right. Mr. Easterly.

Mr. EASTERLY. We are an importer, and we do not have enough for this plan and I want—I will just give me a second. When I worked for a utility, and before that a steel company, we were working on this millennium pipeline to bring gas to New England. It can't cross the Hudson River. For decades that pipeline project has been going forward and not made the impact that it needs.

Mr. GRIFFITH. So it took decades to try to get that done and it hasn't been able to make the impact, but the EPA is requesting that the states have their plans ready by next year sometime; isn't that correct?

Mr. EASTERLY. That is correct.

Mr. GRIFFITH. And if it is going to take decades to put the pipeline in to do what the EPA is asking you, if one of your options is to go to natural gas, that is not going to work, is it?

Mr. EASTERLY. It is going to be difficult.

Mr. GRIFFITH. It is going to be difficult. I will tell you we have the same problem with some of the new technologies like chemical looping where it is not going to be ready in time to meet the EPA standards.

Mr. Chairman, if we could get a quick yes or no from each of the remaining.

I am out of time, and I apologize that I took too long.

Mr. DARWIN. Yes, it would create a problem, and it is important to note that in states like Arizona, we have to achieve so much of our goal by 2020. We have to reach 75 percent of our goal by 2020, and that means we have to rely upon the assumptions that are behind building block 2, which is about converting from coal genera-

tion to natural gas generation, so infrastructure is absolutely a need, and assuming that we can have that infrastructure in place by 2020 just isn't a fair assumption.

Mr. GRIFFITH. All right. Ms. Speakes-Backman, have you-all had any problems in Maryland. I know you are a much smaller state than Arizona and Texas and some of the others?

Ms. SPEAKES-BACKMAN. At this time we have had no problem with natural gas.

Mr. GRIFFITH. Yes, ma'am.

Mr. DANNER. Yes. We are looking at there will be some natural gas expansion, but we are on track.

Mr. GRIFFITH. On the long track or on the right track?

Mr. DANNER. Well, it is a modest expansion, so it is—and then we have some LNG and CNG facilities that are coming on, and we are just seeing that is going on fine.

Mr. GRIFFITH. All right.

Mr. KAVULLA. Infrastructure is always a problem, electric transmission or natural gas anything.

Mr. GRIFFITH. And it is hard to justify seeing these regulations that require plans by next year and major compliance by 2020.

Mr. Chairman, I yield back. Thanks for your patience.

Mr. WHITFIELD. The gentleman yields back, and that concludes today's hearing.

Everyone has had the opportunity to ask questions, and I want to once again thank the members of the panel for taking time from your very busy schedules to come and visit with us, and we appreciated your perspectives and look forward to working with you as we move forward on this rather complicated issue that the country is going to be trying to undertake.

And without objection, I want to enter into the record, number 1, the hearing memo for today which we normally don't do but because it has the interim and the final goals for each state on its emissions prepared by EPA, we want to put that in.

And second of all, I have a September 2nd, 2014, EIA report entitled "Residential Electricity Prices are Rising," and it goes through the various regions of the country, and I might say that in New England the rates went up the most in the first half of 2014 by 11.8 percent, and then we have the EIA state-by-state average retail electricity prices for June for each region, and I would like to enter this into the record. And then the record, we will keep it open for 10 days for any additional materials.

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

Mr. WHITFIELD. But once again, I thank all of you, and we look forward to working with you, and that will conclude today's hearing.

[Whereupon, at 12:25 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Every state has its unique electricity needs. In Michigan we have significant electricity demand from our extensive manufacturing sector as well as that from other businesses and consumers. And we have very cold winters where electric reliability can literally be a matter of life and death. Other states also have particular circumstances that their own state governments are best equipped to address. I am especially troubled by the prospect of a federal takeover of state electricity planning

that is embodied in EPA's proposed Clean Power Plan, and it is critically important for this subcommittee to hear from state-level officials to more fully understand the implications of EPA's plan.

Since its enactment in 1970, the Clean Air Act has balanced the state and federal role. In fact, the statute contains a Congressional finding that air pollution prevention and control is the primary responsibility of state and local governments. Under the Clean Air Act, EPA focused on regulating smokestack emissions from electric power plants, while most other energy planning decisions were left to the states.

For nearly 45 years, this balance has worked relatively well. We have seen dramatic improvements in air quality while keeping electricity affordable and reliable. But now, EPA's Clean Power Plan is threatening this balance by shifting nearly all authority to EPA. If this proposed rule becomes final, it will be bureaucrats in Washington who will be micromanaging electricity production and use in each state.

For the first time, EPA would have substantial control over how electricity is generated, transmitted, and consumed. No longer would states have the last word on items such as the best mix of coal, natural gas, nuclear, and renewables to meet electricity needs. Instead, each state would have to submit to EPA a plan to bring its electricity system into compliance with the new federal requirements. And if EPA rejects a state's plan, it will impose its own plan, the details of which the agency has not yet revealed. And all of these new burdens will be placed upon states at a time when they face many other economic challenges and budgetary constraints.

It is difficult to imagine this new level of federal control as anything other than bad news for affordable electricity prices and jobs. And it may be even worse news for electric reliability, a subject that is the primary jurisdiction of agencies other than EPA, as FERC recently confirmed at our last hearing.

For manufacturers, affordable energy is vital to remaining globally competitive. We are currently seeing the tremendous benefits of affordable domestic natural gas for our manufacturers. But high electricity costs and uncertain supplies could negate the natural gas advantage.

EPA's regulatory scheme can harm future economic prospects in many ways. Manufacturers deciding whether to locate a new facility in the U.S. or abroad will take into account the fact that most of America's global competitors are not burdening their electric systems with any overreach like the Clean Power Plan. The plan's impacts on states' individual competitiveness, and their ability to lure new jobs and development, will also likely complicate how much states can band together to effectively ration their energy use to meet the plan's goals.

We have been down this road before with the recent health law. And one clear lesson from all of the health law's unpleasant surprises is that policymakers should look before they leap. That is why we need to hear directly from state-level energy officials about the proposed Clean Power Plan. These are the people in the best position to anticipate the potential problems implementing this radical agenda, and I am pleased that we have a variety of state perspectives represented here today.



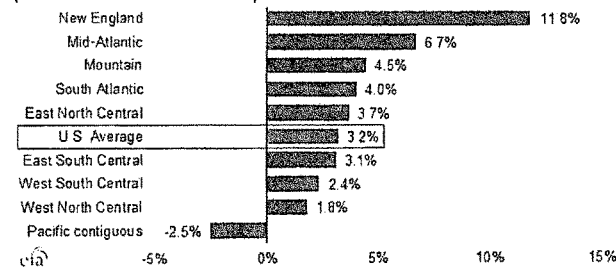
U.S. Energy Information
Administration

Today in Energy

September 2, 2014

Residential electricity prices are rising

Change in average residential electricity prices by Census division
(first half 2014 versus first half 2013)



Source: U.S. Energy Information Administration, August 2014 *Electric Power Monthly*

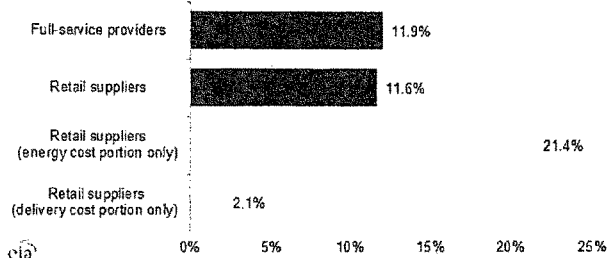
Note: Data are preliminary.

Note: Map of U.S. Census divisions.

U.S. retail residential electricity prices for the first half of 2014 averaged 12.3 cents per kilowatthour, an increase of 3.2% from the same period last year. This is the highest year-over-year growth in residential prices for the first half of the year since 2009. Average prices rose in all areas of the country except for the Pacific Census Division (excluding Alaska and Hawaii).

Electricity customers in New England experienced the largest price increases, averaging 11.8%. Beyond taxes, fees, and other charges, there are two main components of electricity bills: the generation component, which reflects the costs of generating the electricity, and the delivery portion, which reflects the costs of transmitting and distributing that electricity. All New England states, with the exception of Vermont, have restructured the industry so that residential customers have the option of choosing an alternative retail electricity supplier for the generation (energy) component of their electricity bill. More than one-quarter of all residential customers in New England pay a retail supplier other than the regulated utility for the generation of their electricity. Customers of both full-service utilities and restructured retail suppliers have experienced similar rate increases of just under 12% so far this year.

First half 2014 growth in New England residential electricity prices from first half 2013, by type of supplier



Source: U.S. Energy Information Administration, Form EIA-826 survey
 Note: Growth rates reflect preliminary data.

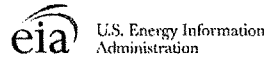
The primary driver of the recent increase in New England retail rates was the sharp rise in wholesale power prices. For the first six months of 2014, the day-ahead wholesale power price in the ISO-New England control area averaged \$93 per megawatthour, 45% higher than the average wholesale price during the same period last year. The increased cost of producing electricity in New England is evident in the 21% increase in the energy-only component of restructured retail suppliers' rates. In contrast, the delivery-only component of restructured retail customers' bills has risen only 2% this year. This component of electricity prices has been rising in part because utilities have been spending more on the transmission infrastructure necessary for delivering electricity to customers.

The 2.5% year-to-date decline in Pacific residential electricity prices is distorted by a temporary dip in revenues for California utilities during the month of April. This drop was a result of a credit averaging about \$35 to the electric bills of most customers of the state's investor-owned utilities. The California Climate Credit is a refund of money that the state receives from the sale of allowances for greenhouse gas emissions through their cap-and-trade system. Excluding the month of April when the refund was issued, prices paid by residential customers in the Pacific region rose 0.9% above the same period last year. In California alone, prices (excluding April) were 1% higher.

Principal contributor: Tyler Hodge

How does EIA calculate retail electricity prices?

Electricity prices can be difficult to determine, as they depend on the customer's rate structure, which can differ greatly from company to company. EIA does not directly collect retail electricity rates or utility tariffs. However, using data collected on revenues and kilowatthours sold to each customer group (residential, commercial, and industrial), EIA calculates average retail revenue per kilowatthour as a proxy for retail electricity prices. The Utility Rate Database, sponsored in part by the U.S. Department of Energy, is one useful source of rate structure information.



Electric Power Monthly

Data for June 2014 | Release Date: August 25, 2014 | Next Release: September 25, 2014

| Re-release date: September 03, 2014 |

Previous Issues

Issue: July 2014 Format: pdf Go

Table 5.6.B. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector

by State, Year-to-Date through June 2014 and 2013 (Cents per Kilowatthour)

Census Division and State	Graph	Residential		Commercial		Industrial		Transportation		All Sectors	
		June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013
		YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
New England		17.70	15.83	14.68	14.07	12.11	12.15	8.68	7.79	15.48	14.31
Connecticut		19.46	17.36	15.51	14.76	13.04	12.72	11.95	9.78	16.95	15.65
Maine		15.02	14.34	13.14	11.74	9.93	8.58	--	--	13.01	11.95
Massachusetts		17.23	15.02	14.45	14.34	12.86	12.97	NM	NM	15.24	14.13
New Hampshire		17.35	16.50	14.75	13.64	12.29	11.58	--	--	15.42	14.47
Rhode Island		18.13	15.12	14.93	13.11	13.09	12.03	13.80	12.83	15.98	13.79
Vermont		17.55	17.01	14.66	14.60	10.30	10.16	--	--	14.72	14.38
Middle Atlantic		16.40	15.37	13.78	12.77	8.06	7.27	12.20	12.15	13.59	12.66
New Jersey		15.66	15.50	13.52	12.50	12.41	10.40	10.82	10.44	14.19	13.39
New York		20.54	18.50	16.21	14.91	6.75	6.55	13.57	13.70	16.52	15.33
Pennsylvania		13.21	12.56	9.87	9.31	7.87	6.99	7.98	7.80	10.50	9.77
East North Central		12.15	11.91	9.81	9.50	6.91	6.52	5.85	5.79	9.62	9.25
Illinois		10.93	10.46	8.69	7.90	6.39	5.69	5.50	5.55	8.71	8.02
Indiana		10.98	10.69	9.72	9.48	6.80	6.54	10.00	9.94	8.87	8.53
Michigan		14.36	14.37	10.90	11.02	7.78	7.83	13.50	9.38	11.10	11.17
Ohio		11.91	11.66	9.89	9.41	6.60	6.03	7.50	6.44	9.50	9.02
Wisconsin		13.69	13.54	10.82	10.73	7.59	7.46	--	--	10.68	10.53
West North Central		10.77	10.58	8.99	8.79	6.62	6.46	9.30	8.17	8.95	8.74
Iowa		10.98	10.72	8.53	8.19	5.64	5.46	--	--	8.07	7.84
Kansas		11.86	11.43	9.86	9.53	7.35	7.04	--	--	9.83	9.49

Census Division and State	Graph	Residential		Commercial		Industrial		Transportation		All Sectors	
		June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013
		YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
Minnesota		11.90	11.66	9.51	9.38	7.10	6.95	9.87	9.62	9.62	9.36
Missouri		10.22	10.16	8.57	8.54	5.97	5.94	6.67	6.99	8.79	8.68
Nebraska		9.82	9.70	8.52	8.41	7.22	7.13	--	--	8.53	8.41
North Dakota		8.92	8.66	8.44	8.09	7.51	7.12	--	--	8.30	7.98
South Dakota		10.12	9.89	8.64	8.24	7.01	6.83	10.17	--	8.92	8.63
South Atlantic		11.61	11.16	9.75	9.32	6.74	6.37	8.88	8.70	10.04	9.58
Delaware		12.93	13.15	10.99	10.31	9.05	8.48	--	--	11.43	11.03
District of Columbia		13.03	12.26	12.60	11.87	8.46	6.12	9.81	9.71	12.51	11.75
Florida		11.88	11.27	9.96	9.52	8.03	7.66	9.22	8.61	10.79	10.24
Georgia		11.44	10.98	10.41	9.81	6.46	5.95	8.38	7.82	9.91	9.35
Maryland		13.63	12.84	11.52	10.44	9.74	8.33	8.70	8.59	12.35	11.34
North Carolina		11.05	10.64	8.80	8.55	6.42	6.12	8.00	7.90	9.33	8.96
South Carolina		12.18	11.69	10.18	9.74	6.29	5.74	--	--	9.55	8.97
Virginia		10.72	10.63	8.01	7.96	6.80	6.61	8.15	8.15	8.98	8.87
West Virginia		9.29	9.57	8.05	8.33	5.98	6.26	9.61	9.24	7.76	8.01
East South Central		10.67	10.35	10.39	9.87	6.20	5.78	13.61	11.67	9.13	8.55
Alabama		11.44	11.19	10.85	10.52	6.13	5.87	--	--	9.24	8.92
Kentucky		9.99	9.63	9.37	8.68	5.80	5.24	--	--	8.21	7.32
Mississippi		11.20	10.75	10.89	10.10	6.69	6.32	--	--	9.56	9.00
Tennessee		10.33	10.01	10.48	10.05	6.51	6.27	13.61	11.67	9.54	9.14
West South Central		10.84	10.59	8.21	8.14	5.96	5.75	5.38	10.38	8.53	8.33
Arkansas		9.13	9.30	7.88	7.96	5.77	5.75	NM	NM	7.64	7.68
Louisiana		9.37	9.26	9.24	8.97	6.08	5.84	9.51	9.54	8.13	7.87
Oklahoma		9.72	9.50	7.81	7.51	5.51	5.22	--	--	7.90	7.61
Texas		11.59	11.24	8.11	8.09	6.02	5.81	5.10	10.51	8.84	8.64
Mountain		11.48	10.99	9.51	9.17	6.50	6.18	10.36	10.18	9.23	8.88
Arizona		11.86	11.41	9.84	9.71	6.60	6.49	--	--	10.04	9.88
Colorado		12.05	11.55	10.11	9.64	7.37	7.08	10.87	10.54	9.95	9.55
Idaho		9.37	8.90	7.64	7.11	6.21	5.76	--	--	7.72	7.25
Montana		10.03	10.16	9.46	9.49	5.43	5.24	--	--	8.53	8.48
Nevada		12.88	11.70	9.40	8.69	6.25	5.61	8.66	7.62	9.24	8.45

EIA - Electricity Data

http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=ep...

Census Division and State	Graph	Residential		Commercial		Industrial		Transportation		All Sectors	
		June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013	June 2014	June 2013
		YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
New Mexico		11.88	11.45	10.02	9.50	6.57	6.23	--	--	9.41	9.02
Utah		10.46	10.06	8.57	8.27	5.94	5.75	10.05	10.17	8.21	7.96
Wyoming		10.18	9.88	8.83	8.49	6.57	6.38	--	--	7.73	7.49
Pacific Contiguous		12.88	13.21	12.55	12.01	8.14	7.79	8.41	7.32	11.69	11.53
California		15.51	16.19	14.28	13.59	11.03	10.60	8.39	7.26	14.05	13.92
Oregon		10.32	9.79	8.81	8.39	6.05	5.73	9.16	8.81	8.75	8.32
Washington		8.72	8.57	7.95	7.73	4.24	4.09	8.49	8.29	7.20	7.03
Pacific Noncontiguous		29.16	28.33	28.36	25.30	28.55	26.30	--	--	27.26	26.54
Alaska		19.00	17.97	16.99	15.26	15.60	16.05	--	--	17.37	16.36
Hawaii		37.96	37.18	34.88	34.46	30.75	30.13	--	--	34.10	33.57
U.S. Total		12.27	11.91	10.60	10.15	6.98	6.67	10.21	10.13	10.30	9.88

See Technical notes for additional information on the Commercial, Industrial, and Transportation sectors.

Notes: - See Glossary for definitions. - Values are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826.

Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule.

Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications.

Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-826, Monthly Electric Sales and Revenue Report with State Distributions Report.

111

Statement for the Record

On behalf of the
National Association of Home Builders

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

Hearing: "State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan"

September 9, 2014

Contact Info:
Billie Kaumaya
NAHB
1201 15th Street, NW
Washington, DC 20005
202-266-8570
bkaumaya@nahb.org

Introduction

NAHB appreciates the opportunity to submit this statement to the House Energy and Commerce Committee in response to the record of the hearing titled, "State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan." NAHB wishes to express our serious concerns regarding the EPA's proposed rule to use section 111(d) of the Clean Air Act to regulate greenhouse gas (GHG) emissions for existing fossil fuel-fired power plants and its potential to impact home builders and home owners. NAHB appreciates the Committee exercising its oversight responsibilities by holding hearings on this issue and we share their concerns about the impact this rule will have on energy prices and grid reliability. NAHB believes the Committee should investigate how this rule will impact the housing industry and potentially result in new federally-enforced energy codes and mandates on consumers.

Energy codes set the baseline energy efficiency requirements in a building. Historically, states and localities have maintained the authority to adopt and enforce energy codes. Neither EPA nor any other federal agency has authority to enact a federal energy code. By including the adoption of energy codes in a state's implementation plan, these state and locally adopted codes may become federally enforceable. Even more troubling, if a state does not submit a plan, or their plan is not approved, EPA officials may create and enforce plans for states. This means that the EPA could not only assume the role of "enforcer," but also might be able to require states to adopt these codes.

This government overreach does not align with the goal of the proposed rule -- to regulate GHG emissions from power plants using section 111(d) of the Clean Air Act. Whether or not the Clean Air Act authorizes the federal government to regulate these plants in this manner has and will continue to be debated. However, if the proposed rule is finalized as proposed, it will allow for the federal regulation of individual home owners under the Clean Air Act. NAHB does not believe this was part of the legislative intent and should not be allowed in this rulemaking.

Under the proposed rule, EPA establishes four "building blocks" that states can use to meet the GHG emission reduction targets: 1-heat rate improvement; 2-shift to natural gas power plants; 3-renewable and nuclear energy; and 4-end-use energy efficiency. While energy efficiency incentives and demand side management programs can be a tool to help reduce energy use in the built environment, NAHB is most concerned with building block four because states unable to meet their GHG reduction targets through other means may use expensive energy codes or create other efficiency mandates for home owners. This will drive up the cost for new construction, pushing home buyers into less efficient older homes and slowing our housing recovery.

Why Energy Codes and Efficiency Mandates Should Not Be Used:

There are Major Problems with Measuring Compliance: The proposed rule also requires states to calculate and measure compliance. Calculating energy use in buildings can be very difficult, if not impossible. Developers have tried to obtain whole building energy use information (in multifamily structures) and have run into privacy issues and other laws and regulations that impede this calculation. In addition to the regulatory hurdles, the actual calculation presents its own problems. Building usage patterns, occupancy, hours of operation and weather are all factors to quantify when trying to compare actual energy use to that of a compliance target.

Energy Codes are Expensive and Drive Home Buyers into Older Buildings that Use More Energy: Early versions of the energy codes were more cost-effective because they included reasonable payback periods. Today, the codes include costly requirements that do not have the same return on investment.

NAHB polling shows that homeowners are willing to invest in energy efficiency, but expect a payback of 7 years or less. An average home built to the 2012 residential energy code, compared to the 2009 code, would add thousands of dollars to the cost of a new home, without providing a reasonable payback to the homeowner. The payback period for the 2012 code is between from 8.9 to 17.3 years. These codes are updated every three years and the costs for code compliance keep growing, which has in part led most states to not adopt the latest code. If this rule is finalized, as written, many states will have no option but to impose new energy codes to meet their targets. Energy efficiency is not free - this rule would force home owners to purchase expensive technology that will drive up costs for new homes. Many families will be forced into existing housing, which tends to use far more energy than new homes.

New Mandates Don't Always Result in Energy Savings: Adopting an energy code does not guarantee that a home will use less energy and result in reduced GHG emissions, as occupant behavior is a key factor in determining energy use. While a house may be designed and constructed to use less energy, home owners may leave their lights on, keep their home cooled to 65 degrees and otherwise use more energy than estimated. According to the Energy Information Administration (EIA), two-thirds of household electricity in 2009 can be attributed to the use of appliances, electronics and lighting, all of which are not impacted by building design. Government regulations that mandate market outcomes are not an effective tool for achieving energy efficiency. In practical terms, these rules simply increase construction costs (without reference to consumer demand), thereby reducing new home construction, and forcing buyers into older homes, which are less energy-efficient.

Policy Should Target Existing Buildings with Retrofit Incentives: According to the EIA, homes built between 2000 and 2009 make up less than 14% of the total site energy consumption. New homes continue to become more energy efficient, while older homes continue to drain energy resources. Government programs should be geared to helping home owners afford energy efficiency retrofits. Demand-side management programs can also encourage owners of existing homes to invest in efficiency. NAHB supports such voluntary programs.

Conclusion

This proposed rule, if finalized as written, will have a negative impact on the home building industry. Many states will have no choice but to adopt new energy codes and other energy efficiency mandates – all of which will be federally enforceable. These mandates will drive up the cost of a new home. For every \$1,000 increase in the price of a new home, 206,269 home buyers are priced out of the market. New construction will continue to stagnate and home buyers will be driven to purchase existing housing stock, which uses more energy and results in higher GHG emissions.

NAHB plans to file comments with the EPA on this issue. We believe that if this rule is finalized, it should not impose federally enforceable mandatory requirements on home owners. We look forward to working with you and hope to have the opportunity to further highlight our concerns in future hearings.

Thank you for your attention to this matter.



THE COMMITTEE ON ENERGY AND COMMERCE

MEMORANDUM

September 5, 2014

TO: Members, Subcommittee on Energy and Power

FROM: Committee Staff

RE: Hearing on "State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan"

On Tuesday, September 9, 2014, at 10 a.m. in 2123 of the Rayburn House Office Building, the Subcommittee on Energy and Power will hold a hearing entitled "State Perspectives: Questions Concerning EPA's Proposed Clean Power Plan."¹

I. WITNESSES

The Honorable Kenneth W. Anderson, Jr.
Commissioner
Public Utility Commission of Texas

The Honorable Paul J. Roberti
Commissioner
Rhode Island Public Utility Commission

The Honorable Travis Kavulla
Commissioner
Montana Public Service Commission

The Honorable Kelly Speakes-Backman
Commissioner
Maryland Public Service Commission

The Honorable Henry R. Darwin
Director
Arizona Department of Environmental Quality

The Honorable David W. Danner
Chairman
Washington Utilities and Transportation
Commission

The Honorable Tom W. Easterly
Commissioner
Indiana Department of Environmental
Management

II. BACKGROUND

On June 2, 2014, the Environmental Protection Agency (EPA) announced a 645-page proposed rule for existing fossil fuel-fired power plants pursuant to section 111(d) of the Clean Air Act (CAA) entitled "*Carbon Emission Guidelines for Existing Stationary Sources: Electric Generating Units*" ("Clean Power Plan").² The proposed rule is accompanied by hundreds of pages

¹ The Subcommittee previously held hearings on the proposed Clean Power Plan on June 19, 2014 with EPA Acting Administrator Janet McCabe and on July 29, 2014 with the Federal Energy Regulatory Commission.

² In 2010, EPA announced a settlement committing the agency to issue greenhouse gas emissions standards for fossil fuel-fired power plants pursuant to Section 111 of the CAA. On June 25, 2013, President Obama announced his Climate

Majority Memorandum for September 9, 2014, Energy and Power Subcommittee Hearing
Page 2

of fact sheets, legal and other memoranda, technical support documents and a regulatory impact analysis. The proposal was published in the Federal Register on June 18, 2014, and comments are due October 16, 2014.

In its proposed rule, EPA interprets section 111(d), a rarely invoked provision of the CAA,³ to provide the agency with regulatory authority to require states to meet mandatory carbon dioxide (CO₂) targets set by the agency for the state's electricity system. In particular, EPA proposes to set unique "state-specific rate-based goals for carbon dioxide emissions from the power sector" which include for each state an "interim goal" required to be met beginning in 2020 and applying through 2029, and a "final goal" required to be met beginning in 2030 and beyond. EPA derives its mandatory CO₂ "goals" for States based on the consideration of four "building blocks," which include measures to:

- 1) "make fossil fuel power plants more efficient," which EPA projects would result in an average heat rate improvement of 6% for coal units;
- 2) "use low-emitting power sources more," which EPA projects could be achieved by dispatch to existing and under-construction natural gas combined cycle units up to a 70% capacity factor;
- 3) "use more zero- and low-emitting power sources," which EPA projects could be achieved through dispatch to new clean generation, including new nuclear generation under construction, deployment of new renewable generation, and continued use of existing nuclear generation; and
- 4) "use electricity more efficiently," for which EPA assumes would increase demand-side energy efficiency of 1.5% annually.⁴

A chart reflecting each state's proposed interim and final "goals"⁵ is attached as Appendix 1.

EPA is proposing that states adopt plans that incorporate a combination of "strategies," and has posted on its website a map which includes information for each state (except Vermont and the District of Columbia) and indicates that the state "may work alone or in cooperation with other states to comply with the proposed rule," and should identify "strategies" for their plans which may include:

Action Plan and issued a Presidential Memorandum directing EPA to complete these rulemakings. For additional background relating to EPA's proposed standards for new and existing power plants, see Nov. 14, 2013 hearing memorandum; June 19, 2014 hearing memorandum; and July 29, 2014 hearing memorandum.

³ Section 111(d) authorizes the EPA Administrator to prescribe regulations establishing a procedure under which states submit to the Administrator a plan establishing standards of performance (a/k/a "Existing Source Performance Standards") for certain existing sources and certain air pollutants. See 42 U.S.C. § 7411(d). EPA has applied section 111(d) to regulate five source categories: fertilizer plants (1977), sulfuric acid mist (1977), Kraft pulp mills (1979), primary aluminum plants (1980), and municipal solid waste landfills (1996). See Proposed Clean Power Plan, 79 Fed. Reg. 34,830, 34,844, n. 43 (June 18, 2014). EPA has also regulated sewage sludge incinerators under section 111(d) in conjunction with CAA section 129. *Id.* at 34845, n. 44.

⁴ See, e.g., "Fact Sheet: Clean Power Plan Framework". For further discussion of the "building blocks" see Proposed Clean Power Plan, 79 Fed. Reg. 34830, 34855-34875 (June 18, 2014).

⁵ In the proposed rule, EPA states that "[o]nce the final goals have been promulgated, a state would no longer have an opportunity to request that the EPA adjust its CO₂ goal." *Id.* at 34835.

Majority Memorandum for September 9, 2014, Energy and Power Subcommittee Hearing
Page 3

- Demand-side energy efficiency programs
- Renewable energy standards
- Efficiency improvements at plants
- Dispatch changes
- Co-firing or switching to natural gas
- Construction of new natural gas combined-cycle plants
- Transmission efficiency improvements
- Energy storage technology
- Retirements
- Expanding renewables like wind and solar
- Expanding nuclear
- Market-based trading programs
- Energy conservation programs⁶

Under the Clean Power Plan, states would be required to develop, adopt, and submit their plans to EPA for approval not later than June 30, 2016, with a possible one year extension for individual state plans and two year extension for plans that include a multi-state approach. Proposed Clean Power Plan, 79 Fed. Reg. at 34844. Once EPA approves the plan, the provisions in the plan would become “federally enforceable against the entity responsible for noncompliance.” *Id.* In the event that a state fails to submit a plan, or EPA finds a state’s plan unsatisfactory, EPA would impose a federal implementation plan. *Id.* The agency has not yet developed a model federal plan.⁷

Although EPA’s proposed Clean Power Plan currently is still being reviewed and the comment period is open,⁸ numerous questions have already been raised relating to EPA’s proposal. Questions range from legal issues relating to whether EPA has authority to regulate power plants at all under section 111(d), to whether EPA has authority to pursue an “outside the fence” approach (assuming the agency has authority to regulate existing power plants under section 111(d) of the CAA), or whether EPA has authority to impose what is effectively a state-by-state cap-and-trade CO₂ emissions policy, among other legal issues.⁹ Questions also concern the workability and feasibility of the rule, ranging from how EPA’s proposed mandatory state CO₂ emissions targets were calculated and whether there was interagency and state coordination in development of the rule, to the

⁶ See “Clean Power Plan-States”; see also “Clean Power Plan Toolbox for States.”

⁷ On June 19, 2014, EPA Acting Assistant Administrator McCabe testified that the agency has “not come anywhere near to proposing a Federal implementation plan,” and that in terms of what a federal implementation plan would look like “[w]e haven’t thought that through, and any proposed federal plan, we would go through a public process to get people’s view on that.”

⁸ At least 17 states have requested extensions of the comment period. See, e.g., Aug. 25, 2014 Letter to EPA from the Attorneys General of West Virginia, Nebraska, Oklahoma, Alabama, Indiana, Kansas, Louisiana, Montana, North Dakota, Ohio, South Carolina, South Dakota, and Wyoming; Aug. 25, 2014 Letter to EPA from Kentucky Attorney General; August 28, 2014 Letter from Alaska Department of Environmental Conservation; Aug. 12, 2014 Letter from North Carolina Department of Environment and Natural Resources; Aug. 21, 2014 Letter from Kansas Department of Health & Environment; August 19, 2014 letter from Mississippi Department of Environmental Quality.

⁹ See e.g., Amicus Brief of the States of West Virginia, Alabama, Alaska, Kentucky, Nebraska, Ohio, Oklahoma, South Carolina and Wyoming filed June 25, 2014; Petition for Review filed by States of West Virginia, Alabama, Indiana, Kansas, Kentucky, Louisiana, Nebraska, Ohio, Oklahoma, South Carolina, South Dakota and Wyoming filed July 31, 2014; Perspective of 18 States on Greenhouse Gas Emission Performance Standards for Existing Sources under § 111(d) of the Clean Air Act (September 11, 2013); “The Oklahoma Attorney General’s Plan: The Clean Air Act Section 111(d) Framework that Preserves States’ Rights” (April 2014); “North Carolina § 111(d) Principles” (Jan. 27, 2014); “N.C. Department of Environment & Natural Resources Comments on EPA’s Proposed Rules for Controlling Greenhouse Gas Emissions under the Clean Air Act, Section 111(d)” (June 30, 2014).

Majority Memorandum for September 9, 2014, Energy and Power Subcommittee Hearing
Page 4

impacts on electricity markets, electricity reliability, and fuel diversity; the implications of increased reliance on natural gas, renewables and energy efficiency; costs associated with stranded assets, compliance costs associated with building necessary new transmission infrastructure, and costs to consumers and businesses; and impacts on future economic impacts, including for states' energy intensive and trade exposed industries.¹⁰

There are also questions which may vary widely by state relating to the amount of state resources that would be required to comply with the Clean Power Plan, coordination among state regulatory agencies (including public utility commissions, environmental, economic development and other state agencies), necessary state approvals, the need for state and/or federal implementing legislation, the actions that would need to be taken by state legislatures to implement the proposed rule, whether and the extent to which special state legislative sessions may be necessary, and the consistency of the Clean Power Plan's "outside the fence" approach with state laws or pending legislation.¹¹ With respect to potential conflicting state legislation, there are at least five states that have passed laws that provide that any CO₂ performance standards established by the state for existing power plants be based on "inside the fence" measures, and there are at least thirteen additional states that have passed similar resolutions in either their House or Senate or both. *See* Appendix 2.

III. ISSUES

The following issues relating to EPA's proposed Clean Power Plan are expected to be examined at the hearing:

- Legal issues associated with EPA's proposal;
- Practical issues associated with EPA's proposal;
- Impacts on electricity rates for consumers and businesses;
- Impacts on fuel diversity and electric reliability; and
- Impacts on future economic growth and jobs.

IV. STAFF CONTACT

If you have any questions regarding the hearing, please contact Tom Hassenboehler, Mary Neumayr or Patrick Currier of the Committee staff at (202) 225-2927.

¹⁰ *See, e.g. June 19, 2014 List of Questions for EPA; see also Questions and June 29, 2014 Hearing* (See witnesses and individual responses to preliminary hearing questions); *State Implementation of CO₂ Rules, Institutional and Practical Issues with State and Multi-State Implementation and Enforcement*, A White Paper, Release 1.0-July 2014, Raymond L. Gifford et al.; *August 4, 2014 Letter from Arkansas Attorney General to EPA Re: Clean Air Act 111(d) Rule-The Clean Power Plan*;

¹¹ *See, footnote 10 above; see also e.g. EPA's CO₂ Rule and 18 States' Resolutions and Legislation, EPA's Proposed CO₂ Rule Collides with Flexibility Asserted By States*, Raymond L. Gifford et al. (August 2014).

APPENDIX 1 – STATE TARGETS

PROPOSED STATE GOALS FOR EXISTING POWER PLANTS (Adjusted Output-Weighted-Average Pounds of CO₂ Per Net MWh From All Affected Fossil Fuel-Fired EGUs)

State	2012 Emissions	Interim Goal	Final Goal
Alabama	1,444	1,147	1,059
Alaska	1,351	1,097	1,003
Arizona *	1,453	735	702
Arkansas	1,640	968	910
California	698	556	537
Colorado	1,714	1,159	1,108
Connecticut	765	597	540
Delaware	1,234	913	841
Florida	1,200	794	740
Georgia	1,500	891	834
Hawaii	1,540	1,378	1,306
Idaho	339	244	228
Illinois	1,895	1,366	1,271
Indiana	1,923	1,607	1,531
Iowa	1,552	1,341	1,301
Kansas	1,940	1,578	1,499
Kentucky	2,158	1,844	1,763
Louisiana	1,466	948	883
Maine	437	393	378
Maryland	1,870	1,347	1,187
Massachusetts	925	655	576
Michigan	1,696	1,227	1,161
Minnesota	1,470	911	873
Mississippi	1,130	732	692
Missouri	1,963	1,621	1,544
Montana	2,245	1,882	1,771
Nebraska	2,009	1,596	1,479
Nevada	988	697	647
New Hampshire	905	546	486
New Jersey	932	647	531
New Mexico *	1,586	1,107	1,048
New York	983	635	549
North Carolina	1,646	1,077	992
North Dakota	1,994	1,817	1,783
Ohio	1,850	1,452	1,338
Oklahoma	1,387	931	895
Oregon	717	407	372
Pennsylvania	1,540	1,179	1,052
Rhode Island	907	822	782
South Carolina	1,587	840	772
South Dakota	1,135	800	741
Tennessee	1,903	1,254	1,163
Texas	1,298	853	791
Utah *	1,813	1,378	1,322
Virginia	1,297	884	810
Washington	1,763	264	215
West Virginia	2,019	1,748	1,620
Wisconsin	1,827	1,281	1,203
Wyoming	2,115	1,808	1,714

* Excludes EGUs located in Indian country within the state

APPENDIX 2 – STATE LEGISLATION AND RESOLUTIONS

- Alabama** Resolution passed Senate and House (SJR 57)
<http://alisondb.legislature.state.al.us/acas/searchableinstruments/2014RS/Printfiles/SJR57-enr.pdf>
- Arizona** Resolution passed Senate and House (SCR 1022)
http://www.azleg.gov/FormatDocument.asp?inDoc=/legtext/51leg/2r/laws/scr1022.htm&Session_ID=112
- Arkansas** Resolution passed Senate during special session (SR 2)
<http://www.arkleg.state.ar.us/assembly/2013/2014S2/Bills/SR2.pdf>
- Florida** Memorial (Resolution) passed Senate and House (SM 1174)
<http://www.flsenate.gov/Session/Bill/2014/1174/BillText/er/PDF>
- Georgia** Resolution passed Senate and House (HR 1158)
<http://www.legis.ga.gov/Legislation/20132014/138326.pdf>
- Illinois** Resolution passed the House (HR 0782)
<http://www.ilga.gov/legislation/98/HR/PDF/09800HR0782lv.pdf>
- Indiana** Resolution passed the House (HR 11)
<http://iga.in.gov/documents/a4a30ad7>
- Kansas** Legislation signed into law (HB 2636)
http://www.kslegislature.org/li/b2013_14/measures/documents/hb2636_enrolled.pdf
- Kentucky** Legislation signed into law (HB 388)
<http://www.lrc.ky.gov/record/14RS/hb388.htm>
- Louisiana** Legislation signed into law (Act 726)
<http://www.legis.la.gov/legis/ViewDocument.aspx?d=915671&n=SB650%20Act%20726>
- Missouri** Legislation signed into law (HB 1631)
<http://www.house.mo.gov/billtracking/bills141/billpdf/truly/HB1631T.PDF>
- Nebraska** Resolution passed Senate (unicameral) (LR 482)
<http://nebraskalegislature.gov/FloorDocs/Current/PDF/Intro/LR482.pdf>
- Ohio** Legislation passed the House (HB No. 506)
http://www.legislature.state.oh.us/bills.cfm?ID=130_HB_506
- Oklahoma** Resolution passed Senate and House (SCR 39)
<https://www.sos.ok.gov/documents/legislation/54th/2014/2R/SC/39.pdf>
- Pennsylvania** Resolution passed the House (HR No. 815)
<http://www.legis.state.pa.us/CFOCS/Legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2013&sessInd=0&billBody=H&billType=R&billNbr=0815&pn=3445>
- South Dakota** Resolution passed Senate and House (HCR 1022)
<http://legis.sd.gov/docs/legsession/2014/Bills/HCR1022ENR.pdf>
- Tennessee** Resolution passed the House (HJR 663)
<http://www.capitol.tn.gov/Bills/108/Bill/HJR0663.pdf>
- West Virginia** Legislation signed into law (HB 4346)
http://www.legis.state.wv.us/Bill_Status/bills_text.cfm?billdoc=hb4346%20ENR.htm&vr=2014&sesstype=RS&billtype=B&houseorig=H&i=4346
- Resolution passed by House (HR 13)
http://www.legis.state.wv.us/Bill_Status/resolution_history.cfm?year=2014&sessiontype=RS&input4=13&billtype=R&houseorig=H
- Wyoming** Resolution has passed House and Senate (SJ 0001)
<http://legisweb.state.wy.us/2014/Enroll/SJ0001.pdf>



STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 19, 2014

Ms. Gina McCarthy
U.S. EPA Administrator
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator McCarthy:

On June 18, 2014, the U.S. Environmental Protection Agency (EPA) proposed guidelines for states to follow in developing state plans to address carbon dioxide emissions from existing fossil fuel fired electric generating units under section 111(d) of the Clean Air Act.

Mississippi Department of Environmental Quality is currently working on developing comments for the rule and getting input from our stakeholders. We have made some progress, but will be unable to complete the process within the scheduled timeframe. Since this rule is so complex, with significant impacts to the Utilities and the citizens of Mississippi, we request an extension of 90 days beyond the October 16, 2014, deadline. This would allow us to complete gathering required information from our stakeholders and provide meaningful input to your agency.

Thank you for considering this request. If you have any questions, please contact us.

Sincerely,

Trudy D. Fisher
Executive Director

cc: Heather McTeer Toney, Regional Administrator, Region 4, EPA
Beverly Banister, Air Director, Region 4, EPA