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EXAMINING THE LOCAL IMPACTS OF EPA'S CLIMATE REGULATIONS

FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

OCTOBER 5, 2016—LOGAN, WV

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SECOND SESSION

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OCTOBER 5, 2016

OPENING STATEMENTS

WITNESSES

EXAMINING THE LOCAL IMPACTS OF EPA'S CLIMATE REGULATIONS

WEDNESDAY, OCTOBER 5, 2016

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY,
Logan, WV.

SENATOR CAPITO: So welcome and good afternoon. This hearing will come to order. I like that part.

Anyway, again, I'd like to thank the witnesses and my colleagues for being here today. And this is a very important hearing, and it's very important that we're in Logan County, West Virginia, one of the most deeply affected parts of our country on the topic that we're going to talk about.

Last week the United States Court of Appeals for the District of Columbia heard the oral arguments on the legality of the EPA's Clean Power Plan which as you might recall -- and I think some of the testimony reinforces this decision -- this power plan was stayed, which means it was halted by the U.S. Supreme Court in February. Afterward, Attorney General Patrick Morrisey and Senator Manchin and I and others had a press conference on the grounds of the United States Capitol to talk about this case.

While we are understandably focused on the projected impacts of the Clean Power Plan, it is important that we hear from both sides and all sides about this issue. Coal industry bankruptcies caused at least in part by regulations -- and this is a discussion that I had on the radio this morning and that we have quite a bit -- is it all about the regulations? No. It's not all about the regulations. Is it about -- all about natural gas? No. It's not all about natural gas. Is it all about market forces? No, it's not.

Each one of those I believe plays individually a very strong part in what we see happening to our coal industry. I'm also working hard with my colleagues here and others from West Virginia to make sure that the UMW Health and Pension Fund is restored for those miners who are set to lose their healthcare at the end of the year.

We worked it I think very well through the committee. Senator Manchin's the main sponsor; I'm the cosponsor of the bill. And Congressman Jenkins has been fighting hard on the House side. So we see some blue sky there, although the end of the year we are going to have to really put the big press on which we will.

You know, coal jobs are good jobs. There are many coal miners in the audience today. The Bureau of Labor and Statistics puts the average miner's wage at $84,000 a year which is much higher than our average here in West Virginia of $39,000 of a non-mining annual salary. Coal jobs also support other jobs, and I don't think they get talked about enough or as much. Every vendor in the supply chain is affected. For every one job, seven other jobs are affected.

Coal miners out of work have less disposable incomes to spend in their communities. You could ask any vendor here in Logan County and they can say how affected they've been by this downturn.

And so today we will hear from Gene Trisko who I've had the pleasure of meeting and hearing testimony from Mr. Trisko before. He will talk about the impacts of the Clean Power Plan just on West Virginia, including I believe it's a relatively new report that is out that shows a loss of 47 -- a potential loss of $47 billion just in the State of West Virginia over the life -- or I think it's to 2040 is the -- it's a projected.

We'll also hear from Bob Pasley who's our Wayne County Commissioner to talk about the effects in our local county commission. And then Bo Copley, who's our coal miner who has been affected by this downturn. We'll also hear from Ms. Ireland and Mr. Van Nostrand about their position and their opinions on where and how we should be moving forward.

So I'm going to leave it there. I think

I've been very frustrated with the EPA as many of us have been. One of the most frustrating points for me was in questioning Janet McCabe, who is the EPA acting assistant administrator, about why EPA had not conducted any of their listening sessions -- any of their listening sessions in the State of West Virginia when they were drafting the Clean Power Plan. And the response I got from her was pretty startling.

She basically said, "Well, we went to Pittsburgh," and that -- which shocked me enough, but then she continued and she said, "EPA wanted to have these discussions in locations where people were comfortable."

That to me says that they weren't ready to face what we're going to be hearing a lot of what we're hearing today and some of the folks in the audience. Well, we're here. We're here listening. We're making this part of the public record. We're making this so that our colleagues in the House and Senate that we've -- that disagree with the direction that we want to go and we disagree with the direction they want to go, they know how we feel and how you-all feel. You're putting a face on this for many people across this country, and we appreciate the time and energy that you've come.

And I would say -- I will speak for Senator Manchin and for Congressman Jenkins who I very rarely speak for the two of them -- but I would say we feel very comfortable here and are very glad to be here with you.

Senator Manchin.

SENATOR MANCHIN: First of all, thank you, Madam Chairman. I want to thank all of you for coming, and all of our presenters and all of you in the audience for showing up today because it's extremely important for all of us. I would like to also thank Chairman Inhofe, Republican Chairman of the EPW and also Ranking Member Barbara Boxer for having this and allowing our Chairwoman here, Capito, for inviting us to speak and also holding this.

Let me set the record straight for where I believe that this administration has not understood the grasp of the -- what we call global, a global climate. A global climate means the entire globe. It doesn't mean that the wind and the ocean current start and stop in North America. And when you talk about the globe, it should be a global -- basically a fix. What we have right now -- there's 8 billion tons of coal being burned in the world -- 8 billion tons. United States of America burns about 900 million. We're less than 1 billion. If they quit burning every lump of coal in America -- every lump of coal in America, it's not going to change more than two-tenths of 1 percent. These are by scientists and people who's evaluated it.

Knowing that this product's going to be needed to energize our country for the next two to three decades -- everyone has said that -- that's the hardest thing that we have to grasp with. If you really want to tackle global climate -- I was at the Global Climate Conference in Poland with our NATO countries. Not one of them -- not one country's administering any of the environmental protection things that we do now. They're not using their scrubbers, they're not using low-NOx boilers or they're not using baghouses. We've perfected all that.

And this is what really is baffling to us. Why are we hindering the United States' economy and basically just dismantling economies and communities -- not just West Virginia but other coal communities -- Kentucky, Southwest Virginia, Eastern Ohio. So with that, it's no secret that we in West Virginia are facing severe economic challenges.

The coal economy of our state has been devastated. Cheap natural gas prices compounded by regulatory onslaught by the EPA, an agency that overstepped its authority time and time again, have put coal production in a downward spiral. Being a former governor, I've always said this: You can't regulate what's not been legislated. That's not the role of an agency. That's not the role of any one branch of government. And that's why it has to go through that process because a representative -- myself, Shelley, Evan, all of us who represent basically should have input and we had none.

We continue to experience persistently high unemployment rates in this county and the surrounding area traditionally. Our largest coal producing regions we are consistently posting unemployment numbers in the double digits. Some of our southern counties are posting unemployment rates more than double the national average.

I have said this and I've said it all over Washington, everybody I can speak to, we've got a minimum of six counties not in a recession but in a depression. The difference between a recession and a depression: In a recession you're waiting for a rebound. It'll come back. We've been through the highs and lows before. A depression, we've given up. We're walking out. Our assets -- there are no assets. We could care less. Here bank. There's my keys to my house. Take it. It's not worth anything to me. That's a depression. That's what we're in.

For more -- for the month of August, Workforce West Virginia reported that here in Logan County the unemployment remains at about 10 percent; Mingo County 11.7; Clay County 9.1; Wyoming County 9.4; Boone County 8.4; and McDowell County 12.9. Those are artificially low because other people have quit looking -- they've left or they quit looking. There's no work.

Since 2008, West Virginia has lost 13,000 coal jobs. The Mine Safety Health Administration reports that in 2008 there were 2,129 coal mines and prep plants. In 2015 that number was only 1,459 coal mines and prep plants. That's a loss of 670. Countless companies have declared bankruptcy. And Workforce West Virginia reports that between July 2015 and July 2016 -- in one year -- we lost 4,800 mining and logging jobs, 700 manufacturing jobs and 1,700 in trade, transportation and utility jobs.

The ripple effect of the near total loss of our state's biggest energy industry is affecting the daily quality of West Virginia lives -- whether it be fewer and fewer grocery stores, childcare options or healthcare services or just closing schools because of lack of students.

To complicate matters, we just experienced a once-in-a-century flood that took West Virginia lives, homes and businesses, and that's an absolutely tragic event from which we will be recovering for years to come. So when I look at the manner in which the Obama administration and the EPA have handed down regulation after regulation entirely outside the bounds of what Congress intended when it passed legislation like the Clean Air Act and the Clean Water Act, I can't help but believe that they did not have a plan. I mean, no plan for our state or any other state to be affected the way we have.

And that is not only infuriating me and everybody else, it's a tragic, tragic occurrence. Historically, West Virginia has been an energy export. I think you all know that. Our home state sits in the abundant reserves of coal and natural gas.

In 2016 Annual Energy Outlook, the Energy

Information Administration -- the EIA which is part of the Department of Energy -- projected that in a clean power plant scenario -- this is their scenario -- coal consumption by the electricity sector -- this is the worst scenario you can absolutely paint. If they adopted everything that's in the Clean Power Plan, even with their plan they say about 18 percent of our generation for base load fuel, base load electricity, base load energy will still be coal. Even in the worst case scenario.

While cheap natural gas has been a major factor in the downturn of coal production, it is important to remember that we have ridden the markets up and down before. We've always ridden the markets. We've just never had the Federal Government jump on our back and try to drown us during these difficult times. And it's also clear to me that there was no and is no consideration by this administration of how West Virginia will secure a role in the nation's clean energy future.

I said you know what, if you've got a plan, use your tax plan. We give what we call tax credits. Okay. We call them extenders. We fluffed them up a little bit in Washington so you won't think we're just giving things away, but they truly are. They're called extenders or tax credits. If I'm going to give a wind company as a policy of the United States of America or a solar energy company credits for developing wind and solar, don't you think they ought to use those credits in the areas that have been displaced?

You want us to build you a wind factory. We can build you a windmill. We can build you a solar factory. Just keep our people working. There was no plan. None at all.

The EPA's new source performance standard for power plants and the Clean Power Plan for existing power plants are both examples of the EPA legislating instead of regulating. I have introduced, co-sponsored and supported legislation that would roll back climate regulations and other harmful EPA roles.

I've co-sponsored, along with my colleague here Senator Capito, Affordable Reliable Energy Act called the ARENA Act reining in harmful effects of the Clean Power Plan. I introduced Clean Air, Strong Economies Act which stems the economic harm of the new ozone standards. I also supported the Ozone Standards Implementation Act. I sponsored the Coal Ash Legislation which we just passed in the Senate, and I introduced legislation that would require EPA to base its regulatory standards on technology that is actually proven and commercially available for use.

I'm almost done. I get on a roll here sometimes. I go a little bit longer than I'm supposed to.

The first bill that I introduced as a United States senator was legislation that would prevent the EPA from retroactively -- retroactively vetoing a mine permit. These are mine permits that have gone through five, six, seven, eight, nine, ten years. They went back and reached back arbitrarily and said okay, no more. And that's not right. We fought that.

An unprecedented legal action in 2010, I sued the EPA as governor at that time for overstepping its bounds regarding mountaintop removal practice in West Virginia's coal industry to ensure states that have the power to oversee, regulate and protect their citizens and resources. That's basically protecting the 10th Amendment to the Constitution. State's rights. Our founding fathers never intended for the overreach and basically the micromanagement of government to come from Washington.

We have responsibilities and rights. And earlier this year I joined 33 of my colleagues in the Senate and 171 members of the House in filing a brief with the D.C. Circuit Court of Appeals challenging the legality of the Clean Power Plan. Oral arguments were just heard last week in West Virginia versus the EPA. We were both there. We had good representation.

And right now when I talk to people that basically -- I think, Gene, we talked coming in -- it's a 50/50. It could be tossed up and go either way. I think we're going to end up in the Supreme Court. I really do. And we have got to fight. We have got to fight it hard.

Furthermore, I do not believe the EPA consulted with the Federal Energy Regulatory Commission which is FERC. With energy, base-loaded energy in the United States of America should be dependable, reliable and affordable. They never basically talked to FERC to find out will the system be reliable if you take this much coal-fired energy off the grid. How are you going to back it up?

The vortex, the polar vortex almost shut down the East Coast. There would've been people dying, arbitrarily dying across the East Coast because of that polar storm. They did not take that in consideration whatsoever.

So fossil fuels are going to continue to be a major part of both domestic and global energy. As we speak -- I believe I'm correct in this number -- over 500 new coal-fired plants are being built in India. Close to 400 are still being built in China. The product is the most abundant fuel in the world, and for us to deny other countries from developing -- first time energy users -- this is the first time in some of these countries, especially in rural India, they've ever had a refrigerator, they've ever had a light bulb in their home, they've ever had anything.

And we're going to say oh, I'm sorry, you can't do that. That's not going to happen. So we better get with it and development the technology that we can use coal in a cleaner fashion.

So I believe that we must further develop and commercialize carbon capture, utilization and sequestration, but you just can't make it so expensive that basically it runs every coal plant out of existence. And right now we don't have technology that can use it in an affordable way. We must put the necessary infrastructure in place to take advantage of the robust opportunities that come from our abundant natural resources while ensuring the reliability.

Instead of looking to technology and infrastructure to clean up those fossil fuels and secure the future of energy-producing states like West Virginia, the EPA under this administration has taken it upon itself to legislate a climate agenda that Congress never authorized. We haven't had one input. We're just playing defense all the way through.

West Virginia has helped power the nation for decades. We have done the heavy lifting and I -- to the high heavens, I shout out basically what this little state has done and I want you all to know that basically we have as the State of West Virginia, we have done the heavy lifting. We've mined the coal that made the steel that built the guns and ships. We have more patriots. We have more veterans per capita than any other state. We have shed more blood. Lost more lives for the cause of freedom.

This little state has given her all. And now we feel -- and I've told them this -- my state across the board -- forget politics -- Democrat, Republican -- across the board we feel like the returning Vietnam veteran. We've done everything you've asked us to do. We put our life on the line, and now you've turned your back on us. And now you want people to believe that we didn't do our job or what we did you didn't like.

We built the greatest nation on Earth and we have. The only super power in the world is the United States of America because of domestic energy, mostly coal. Someone's got to recognize that, and someone's got to have a pathway for it that is humane and it will work.

So I would say I'm happy to work -- and Shelley and I have been working hard on the Miners' Protection Act. It's imperative. If we don't pass that before the end of the year, 16,000 miners -- retired miners, will lose their healthcare by the end of this year. 7,000 more by July of next year. After that, by the end of next year, the pensions that all of our retired miners -- United Mine Workers are receiving right now will start spiralling down. They're irrecoverable.

And that bill has passed. They've asked us, both Shelley and I, they said go through regular order. We did that. The finance committee passed it 18 to 8 -- 18 to 8. It was bipartisan. All we need is for Mitch McConnell to put it on the agenda, and it will pass.

That's all we need. So anybody that knows Mitch, close to him, can call him, talk to him, please do so. We need it on the agenda. We've got to pass it before December the 9th.

Thank you, Madam Chairman. I can't thank you enough for this hearing.

SENATOR CAPITO: Thank you, Senator Manchin. I feel a bit like the person who did the vice-presidential debate last night. I feel like I've already lost control of my own hearing. In any event, Congressman Jenkins, thank you.

CONGRESSMAN JENKINS: Thank you, Senator. There were no interruptions along the way, so --

SENATOR CAPITO: That's true.

SENATOR MANCHIN: Very nice.

CONGRESSMAN JENKINS: We're old friends.

Senator Capito, thank you so much for the wonderful opportunity. You know, the folks in this room see us altogether -- Democrats, Republicans, House, Senate -- working hard for West Virginia. What you may not realize is the opportunity for me to participate in a Senate hearing is probably bending the rules a little bit that Senator Capito went to the mat in her leadership role in the subcommittee calling this and I am sincerely appreciative of the opportunity of being able to participate directly. I don't get to go down the hall on the Senate side and sit in on the Senate hearing, so we appreciate it very much. Senator Manchin, great to be with you.

This is a unique opportunity. It was referenced about communicating with the EPA and their unwillingness to come to West Virginia, and it reminds me when I had Gina McCarthy -- not even as far as Commissioner Pasley and I are apart here -- a few feet. I asked Gina McCarthy, I said, "Ms. McCarthy, have you ever been to West Virginia as the EPA Secretary?" You know, the lawyers and a lot of people say you never ask a question you don't already know the answer. And she said, "Well, I can't recall." And I said, "Well, I know you've not been to West Virginia, and I know you know you haven't been to West Virginia. You just can't even bring yourself to acknowledge that no, I've been unwilling to even come to West Virginia."

So having this subcommittee hearing under Senator Capito's leadership is quite an opportunity for our voices to be heard, and I appreciate the opportunity for these voices. These are important voices. You know, times are tough here in Logan County and throughout Southern West Virginia. And it's really in large part and it is because of the war on coal. And there is a war on coal, and we feel it. We see it. We actually can taste it right here in Southern West Virginia.

You know, coal jobs are good jobs. As Senator Capito very accurately said, Bureau of Labor Statistics -- average coal job $84,000 a year. You can support a family on that. You can raise a family. You can provide for a family. You can put food on the table for that.

Whereas, the average wage in West Virginia is $39,000. So over twice the average is a coal miner's wage. And we talked about the unemployment rate. Eight years ago West Virginia had one of the lowest unemployment rates in the entire county. Today, we tragically are one of the highest. So what's happened in the last eight years? We all see it. I hear time and time again from moms, dads, retirees who are worried about their futures and worried about their children's futures. They're forced to make some very tough decisions.

One of those is with us today, Bo Copley. Bo joined me at an event here not long ago where I was highlighting our efforts to extend unemployment compensation benefits for our laid off, employed coal miners. We were bringing a national spotlight to this tragedy. I also brought two coal miners -- Jordan Bridges is with us, Doug Killan. We brought them to Washington. We put them in front of a congressional committee to tell the story of the plight of the West Virginia coal miners.

But there's another story. I heard from Tammy Bateman of Logan County. She's lived here all her life, but she and her husband -- and her husband worked for CI Walker Machinery in their Logan branch for almost 20 years and they had to move. And here's what she wrote me. "Due to the decline in coal industry, we had to move to another state and move our daughter from the school she loves. We have a lot of friends and family that have either had to pack up and move away also and some that have stayed and have had to be laid off and are suffering. This is all due to Obama's war on coal. You see, when coal is affected, so are small businesses, schools and much more -- especially people's livelihoods."

Just as Tammy wrote to me and said that, the war on coal impacts so many people and businesses, so many more than just the thousands of direct coal mining jobs as we've heard today. It hurts our schools. It hurts our police and fire departments all of which are funded by the coal severance tax. We've got Bob Pasley here from Wayne County who's going to talk about the fact that coal severance tax revenue has dropped 88 percent from 2013 to 2016. And as coal mines shut down, communities have less and less and have had to make tough choices.

So Senator Capito, thank you for this opportunity. I look forward to the testimony of the panelists. I appreciate the fact that we are in Southern West Virginia, in the 3rd Congressional District, in front of coal miners who are going to have their voices heard, and they've not had that opportunity enough in the past. So it's an honor to be here, and thank you for this opportunity.

SENATOR CAPITO: Thank you both for our opening statements, and now we will begin with the witnesses. We're going to begin on the left with Mr. Gene Trisko. Gene is the counsel to the United Mine Workers of America, and he's from Berkley Springs, West Virginia. And he is no stranger to helping us analyze the effects of legislation for many years.

Welcome, Gene.

MR. TRISKO: Thank you, Chair Capito, Senator Manchin, Congressman Jenkins. It's a great pleasure for me to be here. I've represented the United Mine Workers for some 30 years in environmental matters, and I must say, ladies and gentlemen, I've never seen it like this before.

I'm here today to talk about the impacts of EPA's Clean Power Plan and also to express our appreciation to you Chair Capito, Senator Manchin and Congressman Jenkins for your leadership and your support of the Miner's Protection Act. We must get that accomplished this year, as you have clearly stated, and we're all committed to working together later this year with Senator McConnell in order to ensure that result.

The mine workers, along with West Virginia and other petitioners -- and there are more than a hundred petitioners -- have challenged the validity of the EPA Clean Power Plan in Federal Court. In May the Supreme Court issued an unprecedented stay of the rule pending the conclusion of all legal challenges. We believe that the Power Plan oversteps EPA's legal authority under Section 111(d) of the Clean Air Act because it forces utilities to switch from coal to natural gas or renewable energy in a manner inconsistent with the legal requirements of the Clean Air Act.

West Virginia depends on coal for 96 percent of its electricity. West Virginia's economy, coal miners, communities, electric generators and the allied industries that depend on coal for their livelihoods and all of these industries share the high wage structure, Senator Capito, that you noted -- all of these industries share that characteristic. They will all suffer greatly if this rule is implemented.

Recent studies by the PJM Interconnection -- and this is the multistate power grid that covers West Virginia and eight or nine other states -- indicate that EPA's rule could cause West Virginia to lose up to 34 percent of its coal-based electric generation by 2025 if the state met its EPA targets by instate means.

There could be smaller loses if West Virginia engaged in an interstate trading program, but in effect what that would mean is that West Virginia rate payers would be asked to subsidize the construction of renewable energy facilities in other states. So hundreds of millions of dollars would leave the pockets of West Virginia rate payers in order to create those renewable facilities mainly in other states -- Iowa for wind, New Mexico for solar and so forth.

These impacts do not consider the loses of coal production that would result from the loss of coal shipments to other states that are affected by the EPA rule. This is a very important point. Less than one-third of West Virginia's coal production is consumed in state. That's what makes it impossible for West Virginia to control its destiny, so to speak, in the implementation of the Clean Power Plan.

Between 2009 and 2014, West Virginia lost 32 million tons of coal output, and all of the high wage jobs associated with that. Those losses are attributable to lower natural gas prices and to the EPA mercury MATS rule.

The Department of Energy estimates that the mercury rule has caused the closure of some 40,000 megawatts of coal capacity across the nation. EPA at the time of issuing that rule estimated the loss of coal capacity at 4,700 megawatts. The WVU Bureau of Business and Economic Research has estimated that the EPA power plan would lead to the loss of about 20 million tons of West Virginia coal production. This is on top of the losses that already have occurred.

Using data from DOE's analysis of the Carbon

Rule and an extended Clean Power Plan, we estimate that another 20 million tons of production would be lost if the national CO2 reduction were expanded from 32 percent in the current rule to 45 percent by 2040.

DOE's extended power plan scenario is consistent with the pledges that the United States of America made in the December 2015 Paris agreement. This would reduce total West Virginia coal production from a current level of about a hundred million tons today to 60 million tons by 2040. The consequences of these production loses would be devastating for jobs, for the overall state economy.

Applying U. S. Department of Commerce economic multipliers specific to the West Virginia mining sector, we estimate that the EPA Carbon Rule -- and this is just a rule that's on the books today -- would lead to the cumulative loss of $47 billion of state economic output, 11 billion of household income and 229,000 job years of employment by 2040. A job year is one job held for one year.

Even larger losses would occur if an extended power plan were adopted along the lines of the Paris agreement. West Virginia's state output could be reduced by a cumulative $60 billion by 2040 along with

$14 billion loss of household income. A total of 288,000 job years of employment would be lost. Clearly, West Virginia cannot afford such draconian economic impacts.

The U. S. Census Bureau reports that the pretax median household income in West Virginia in 2015 was $42,800, and that is 24 percent below the national median income and $5,300 below West Virginia's 2007 pre-recession levels.

You know, there was a lot of talk in the last few weeks about the big increase in median incomes. Well, there was a bump in 2015. The first time really since 2009. But as it stands, West Virginia's median household income, you're $5,300 below where you were in 2007. So not so much of an impact in West Virginia.

The UMWA supports reasonable measures to address climate change consistent with established Clean Air Act principles, but we cannot support rules that cause massive loss of jobs and income in already depressed rural communities like Southern West Virginia. We need instead a major infusion of R&D capital -- both federal and private -- to lower the cost of carbon capture technologies so that coal can continue to play a vital role in base load power generation.

We look forward to working with the Congress, the Department of Energy and other interested parties to ensure this future for our members and for our nation. Thank you very much.

SENATOR CAPITO: Thank you very much, Mr. Trisko. Our next person is our commissioner, our Wayne County commissioner, Bob Pasley. Before he was commissioner, he was for many years the county clerk in Wayne County. So thank you Commissioner for coming. We look forward to your comments.

MR. PASLEY: Senator Capito, let me tell you I appreciate this opportunity to come before and the invitation was very pleasing. It's always good to be with Senator Manchin, Congressman Jenkins. Thank you all for this opportunity.

I have a -- you know, folks who might be listening to this see the world from 35,000 feet, but as county commissioner, I have the honor and the privilege of serving on the ground and I -- where the services are rendered so many times to our people. So this is coming from a dollars-and-cents standpoint but also from here (indicating).

Wayne County is located in the southwest corner of West Virginia. According to the 2010 census,

Statement of Eugene M. Trisko
On behalf of
United Mine Workers of America, AFL-CIO

Before the
U.S. Senate Environment and Public Works Committee
Subcommittee on Clean Air and Nuclear Safety
Chief Logan State Park, WV
October 5, 2016

Good afternoon, Chair Capito and distinguished members of the Subcommittee.

I am Eugene M. Trisko, an attorney in private practice. I am here on behalf of the United Mine Workers of America (UMWA), whom I have represented in environmental matters for some 30 years. Several exhibits are attached to my statement, which I will summarize briefly.

The UMWA appreciates this opportunity to testify on the impacts of EPA's Clean Power Plan. We also want to express our great appreciation to Chair Capito for her continuing strong leadership in securing passage of the Miners Protection Act.

The UMWA, along with West Virginia and other petitioners, have challenged the validity of the EPA carbon rule in Federal court. Last February, the Supreme Court issued an unprecedented stay of the rule pending the conclusion of all legal challenges.

We believe that the Power Plan oversteps EPA's authority under section 111(d) of the Clean Air Act because it forces utilities to switch from coal to natural gas or renewable energy in a manner inconsistent with the legal requirements of the Clean Air Act. West Virginia depends on coal for 96% of its electricity.

West Virginia's economy, and the coal miners, communities, electric generators and allied industries that depend on coal for their livelihoods will all suffer greatly if this rule is implemented.

Recent studies by the PJM Interconnection, a multistate power grid, indicate that EPA's rule could cause West Virginia to lose up to 34% of its coal-based electric generation by 2025 if the state met its EPA targets by in-state means. Smaller losses would result if West Virginia participated in an interstate trading program, in effect asking West Virginia ratepayers to subsidize new renewable facilities in other states. These impacts do not consider the losses of coal production due to reduced coal shipments to other states covered by EPA's rule. Less than one-third of West Virginia's coal production is consumed in-state.

Between 2009 and 2014, West Virginia lost 32 million tons of coal output and the high-wage jobs created by coal mining. These losses are attributable largely to lower natural gas prices and the EPA mercury MATS rule. DOE estimates that the mercury rule has caused the closure of some 40,000 Megawatts of coal capacity across the nation. EPA's estimate of these closures was 4,700 Megawatts.

The WVU Bureau of Business and Economic Research estimates that the EPA Power Plan would lead to the loss of some 20 million tons of West Virginia coal production. Using data from DOE's analysis of the carbon rule and an "Extended Clean Power Plan," we estimate that another 20 million tons of production would be lost if the national CO_2 reduction requirement were expanded from 32% in 2030 to 45% by 2040. DOE's Extended Power Plan scenario is consistent with the pledges that the U.S. made in the December 2015 Paris Agreement. This would reduce total West Virginia coal production from about 100 million tons today to 60 million tons by 2040.

The consequences of these coal production losses would be devastating for jobs and the overall state economy. Applying U.S. Department of Commerce economic multipliers for the West Virginia mining sector, we estimate that the EPA carbon rule would lead to the cumulative loss of $47 billion of state economic output, $11 billion of household income, and 229,000 job-years of employment by 2040.

Even larger losses would occur if an Extended Power Plan were adopted. West Virginia state output could be reduced by a cumulative $60 billion by 2040, along with a $14 billion loss of household income. A total of 288,000 job-years of employment would be lost.

Clearly West Virginia cannot afford such draconian economic impacts. The U.S. Census Bureau reports that pre-tax median household income in West Virginia in 2015 was $42,824, 24% below the national median income and $5,292 below 2007 pre-recession levels.

The UMWA supports reasonable measures to address global climate change, consistent with established Clean Air Act principles, but we cannot support rules that seek to solve this global challenge on the backs of Appalachian families, causing further disruption to already depressed rural communities.

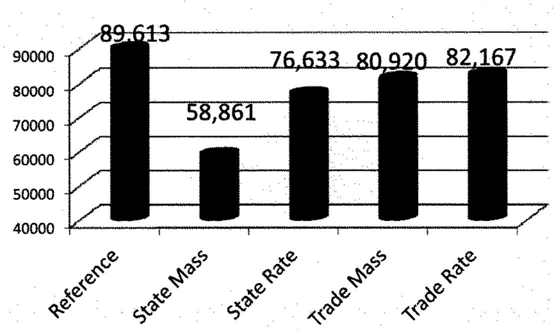
We need instead a major infusion of R&D capital, both Federal and private, to lower the cost of carbon capture technologies so that coal can continue to play a vital role in baseload power generation. We look forward to working with the Congress, the Department of Energy, and other responsible parties to ensure this future for our members, and for our nation.

Thank you for the opportunity to appear today.

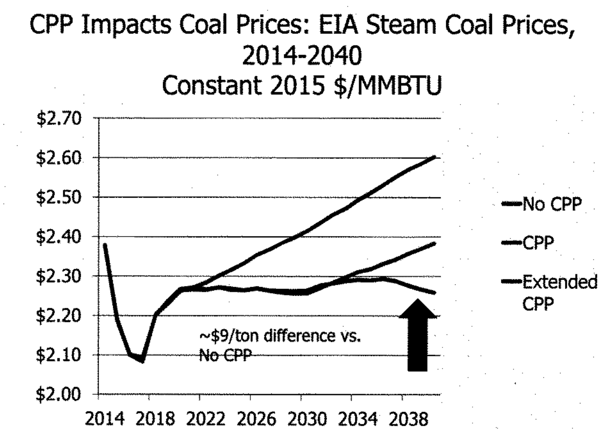
Exhibits to Statement of
Eugene M. Trisko
On Behalf of
United Mine Workers of America

Before the
U.S. Senate Committee on Environment and Public Works
Subcommittee on Clean Air and Nuclear Safety
Chief Logan State Park, WV
October 5, 2016

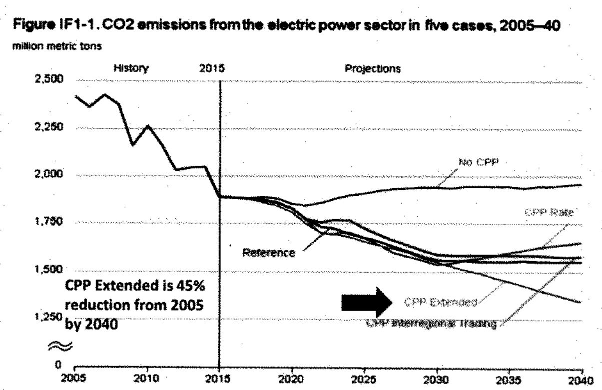
PJM Estimates of WV Coal Generation 2025 (GWh)



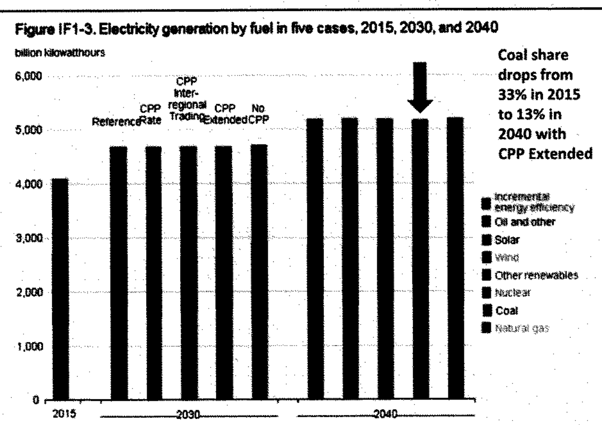
Source: PJM Analysis of Clean Power Plan, September 2016.



Source: DOE/EIA 2016 Annual Energy Outlook.

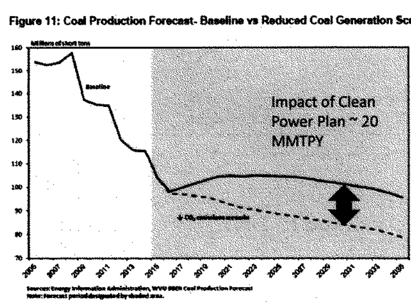


Source: DOE/EIA 2016 Annual Energy Outlook, Impacts of Clean Power Plan (July 2016).



Source: DOE/EIA 2016 Annual Energy Outlook, Impacts of Clean Power Plan (July 2016)

WVU BBER Projections of WV Coal Production to 2035 (Spring 2015)

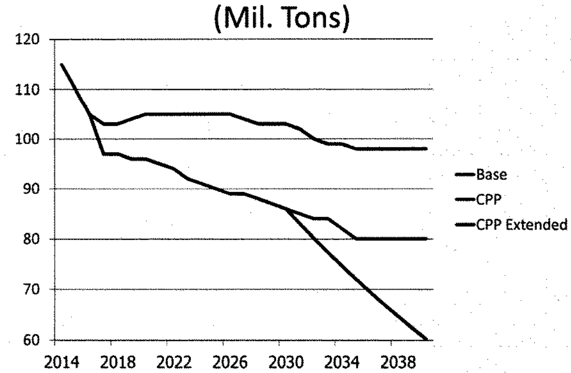


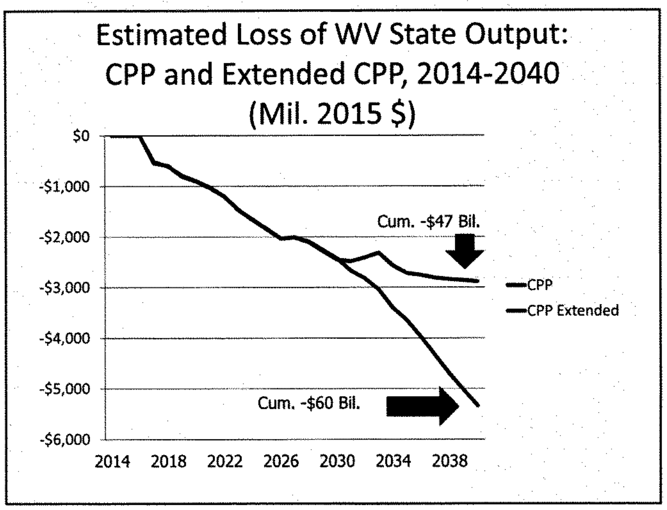
Source: WVU Bureau of Business & Economic Research (2015). Coal impacts based on proposed CPP (less stringent WV targets than final rule).

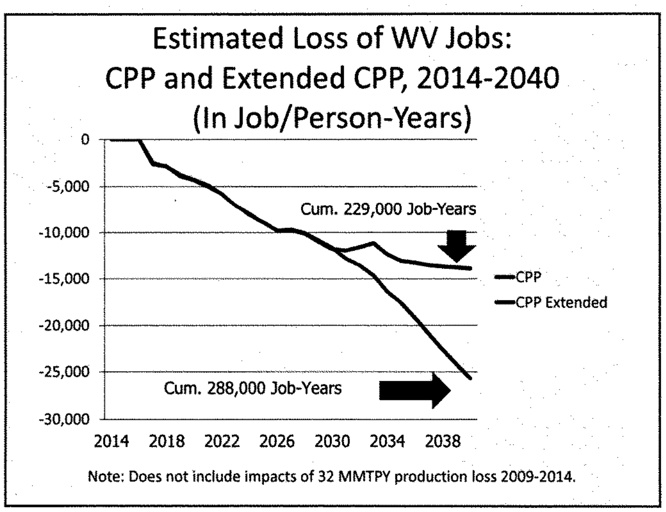
Estimating Impacts to 2040

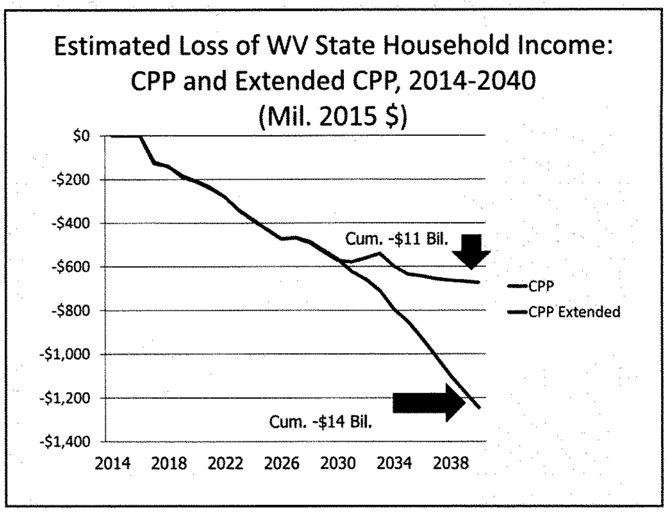
- Use WVU BBER estimates of CPP production losses, extended to 2040 and adjusted for CPP Extended additional CO2 reductions 2025-40.
- Apply DOE/EIA steam coal prices to estimate industry revenue impacts for CPP and CPP Extended cases.
- Use U.S. Dept. of Commerce economic and job multipliers for the WV coal industry to estimate impacts on WV state output and household income.
- These estimates do not include impacts of MATS rule and other factors causing loss of 32 MMTPY of WV coal production from 2009 to 2014.

Estimated WV Coal Production: Base Case, CPP and Extended CPP, 2014-2040 (Mil. Tons)




Estimated Loss of WV State Output:
CPP and Extended CPP, 2014-2040
(Mil. 2015 $)
$0
-$1,000
-$2,000
-$3,000
-$4,000
-$5,000
-$6,000
2014
2018
2022
2026
2030
2034
2038
Cum. -$47 Bil.
Cum. -$60 Bil.
CPP
CPP Extended


Estimated Loss of WV Jobs:
CPP and Extended CPP, 2014-2040
(In Job/Person-Years)
0
-5,000
-10,000
-15,000
-20,000
-25,000
-30,000
2014
2018
2022
2026
2030
2034
2038
Cum. 229,000 Job-Years
Cum. 288,000 Job-Years
CPP
CPP Extended
Note: Does not include impacts of 32 MMTPY production loss 2009-2014.


Estimated Loss of WV State Household Income:
CPP and Extended CPP, 2014-2040
(Mil. 2015 $)
$0
-$200
-$400
-$600
-$800
-$1,000
-$1,200
-$1,400
2014
2018
2022
2026
2030
2034
2038
Cum. -$11 Bil.
Cum. -$14 Bil.
CPP
CPP Extended

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Curriculum Vitae

Eugene M. Trisko is an energy economist and attorney who represents labor clients in energy and environmental matters.

Mr. Trisko has a dual B.A. in economics and politics from New York University (1972) and a J.D. degree from Georgetown University Law Center (1977). Before entering private practice in 1991, he was an energy economist with Robert Nathan Associates in Washington, DC, (1973-77), an attorney with the U.S. Federal Trade Commission (1977-79), and executive vice president of Stern Bros., Inc., an energy holding company in West Virginia (1986-91).

He was involved from 1981 until 1990 in the legislative development of the Clean Air Act Amendments of 1990, focusing on the Title IV acid rain program. He is the author of more than 30 articles on energy and environmental policy issues published in economic, energy, environmental, and law journals, and has testified before Congress and state legislatures on numerous occasions.

Mr. Trisko has participated as an NGO on behalf of the United Mine Workers of America in all United Nations climate change negotiating sessions subsequent to the 1992 Rio Earth Summit. In 2007, he helped to negotiate the clean coal technology and emission allowance allocation provisions of the bipartisan Bingaman-Specter climate bill. *The Hill* has recognized Mr. Trisko as one of Washington's "Top Grassroots Lobbyists." In 2008 and 2009, he helped to negotiate the carbon capture and storage provisions of the Boucher-Rahall and Waxman-Markey climate bills.

Mr. Trisko served for nine years as an appointed member of U.S. EPA's Clean Air Act Advisory Committee. In 2000 and 2007, he was named by the U.S. Department of State as a non-government member of the U.S. Delegation in U.S.-Canada air quality negotiations. He is a Fellow of the American College of Environmental Lawyers. He currently represents labor petitioners in litigation before the D.C. Circuit Court of Appeals concerning EPA's Clean Power Plan and NSPS carbon rules.

we had 42,481 citizens, and I think that's been reduced now because we've had losses. But of those, 65 percent were rural, and 35 percent were urban. So we have a unique county in that we have a city part and we have a country part.

Two companies that I want to bring to -- or three actually -- to mention today. Argus Energy and Kiah Creek Transport closed in 2013 resulting in the loss of 236 jobs directly related to the coal mining industry. In 2015, Alpha Natural Resources closed its Rock Spring Mine operation resulting in the loss of 429 jobs at their mine and preparation plant.

Now, for these communities this is what was involved: Argus Energy was a business partner with Dunlow Elementary School. According to Ms. Kim Mills, principal of Dunlow Elementary, the loss of their business partner has been devastating. As a business partner, Argus Energy provided playground equipment, beautification and equipment repairs.

Additionally, Argus provided the labor and materials for painting the entire school building. And for -- and they provided a copier every three years for that school, and they did many other things around that school that they no longer have available to them.

Rock Spring Development, likewise, was a business partner with East Lynn Elementary School. I contacted Ms. Melissa Maynard, principal of East Lynn Elementary School, and she also said that the loss of the school's business partner was a severe blow to the school and the students. Rock Spring owners and employees provided many benefits to the school. Playground equipment, a new sign, classroom improvements were some the projects undertaken.

Additionally, Ms. Maynard said that Rock Spring adopted the preschool students and provided additional items for them, including a Christmas party for all the preschool students and their families along with presents for each child. Ms. Maynard stated that the Rock Spring family was always willing to help any time she called upon them.

Now, Wayne County's coal severance revenues have all but disappeared. That was mentioned awhile ago. I think the Congressman mentioned it. From fiscal year 2013, was $728,500 and for fiscal year 2016, $86,523. Based on what we know now, this was a -- this was when we budgeted in March. We were probably optimistic even at the $86,000 mark. I have that as Exhibit 1 in my presentation.

And you'll see down there at the fiscal year 2016, the first quarter, second quarter, the third quarter and fourth quarter -- the third and fourth quarter had zero money from the 75 percent allocation. Now, when you have two operating mines in the county and they're gone and you have zero income, you just can't take much more than that away from us. And that's one of the things that we have known.

Now, what do we use coal severance money for? Well, thankfully we didn't operate it for unimportant things. The money was used for goods and services that we do not have -- did not have in our county, general county budget. We used to -- we did give $50,000 each year to the volunteer fire department for an ambulance for our people. We have a program where we had two police cruisers replaced every year for our sheriff department. This will be the third year that we haven't been able to do that. We're going to be in critical need before long.

Capital building projects, senior citizen programs, utilities, economic development and many other worthwhile projects were part of this coal severance that we no longer have. And then now that we don't have the funding, we have to look at a already tight general county budget to plan those in and it's not there. And I'll go on and tell you exactly why.

The general county fund loss is more critical because more money is involved. During this time the Wayne County Commission -- we saw our insurance premiums continue to rise -- utilities, property and liability insurance. And I forgot to mention here our regional jail bill. And so those things that we have to provide as county services, a very tight budget is now even strained further.

Based on figures compiled by the Assessor's Office -- Wayne County Assessor's Office, coal tax revenue by Argus and Rock Spring Development and three other coal-related industries declined from 1,702,000 to 1,340,000 from 2013 to 2016 -- a total decrease of 21 percent.

Personal property for this period saw a total decrease of 22 percent, while the real estate taxes for this period decreased by 5 percent. That doesn't even get into the leased properties that they leased for coal that when they're no longer mineable, that value disappears too. With that value disappearing, so does our revenues.

Even more a telling statistic is the

increase in tax delinquencies -- and, Senator Capito, I think you touched on this -- by these industries for the period. In 2015/2016 Rock Springs Development had a total tax delinquency of $2,426,000, while Argus and Lincoln Leasing have tax delinquencies of 380,000 and $137,000 respectfully.

This resulted in the net loss of $3 million in coal tax revenues to Wayne County. The loss constitutes a $2,371,000 loss in tax revenues to Wayne County Board of Education who is now struggling because of these losses, and $810,867 lost in general county revenues -- revenues which are critical for our education system and general county operations. And I have shown on Exhibit 2 here the -- by -- from fiscal year '13 to fiscal year '16 the decline in the values and revenues that we have now to work with.

And as mentioned before too, I've worked at the Wayne County Courthouse for 39 years. 31 of which has been served either elected official as county clerk or county commissioner. And during that time -- and I was the bookkeeper and I know -- I do not believe that Wayne County has been so challenged to provide for its citizens that it is now experiencing, and the forecast for the foreseeable future is very bleak.

So I hope that this has been some kind of informative thing that you can use and you can take back with you and know that this comes from the ground. Thank you very much.

SENATOR CAPITO: Thank you, Commissioner. Our next panelist is Jimmy "Bo" Copley who is a coal miner here in Southern West Virginia. He's also a family man. And he's going to tell his story to all of us. Thank you, Bo, for coming.

MR. COPLEY: Senators Capito, Manchin, Congressman Jenkins, thank you for having me here today. As I said, my name is Bo Copley. I'm a 39-year-old child of God, I'm a husband to one, a father to three, a proud West Virginian and unfortunately a former coal miner.

I was formally employed at Coalmac, Incorporated in Holden, West Virginia, which is a subsidiary of Arch Coal in St. Louis, Missouri, and I was employed there from July 26, 2004 to September 18, 2015. My duties at that job were that of a maintenance planner, EMT, rescue team member and a certified surface mine foreman.

Just slightly over a year ago, I was notified that my services were no longer needed due to a

County Commission of Wayne County

P.O. Box 248
Wayne, WV 25570
Phone 304-272-6350 • Fax 304-272-6348
Robert E. Pasley, President • Kenneth R. Adkins, Commissioner • David H. Pennington, Commissioner

Senate Committee on Environment and Public Works
Subcomittee on Clean Air and Nuclear Safety

Chief Logan Conference Center
Logan, West Virginia

October 5, 2016

Wayne County, West Virginia is located in southwest corner of West Virginia. Wayne County has a population of 42,481 per 2010 Census. Of this total, 27,692 residents (65%) are categorized as rural, whereas, 14,789 (35%) are categorized as urban.

Argus Energy and Kiah Creek Transport closed in 2013, resulting in the loss of 236 jobs directly related to the coal mining industry. In 2015, Alpha Natural Resources closed its Rockspring mine operation, resulting in the loss of 429 jobs at their mine and preparation plant.

Argus Energy was a business partner with Dunlow Elementary School. According to Ms. Kim Mills, principal at Dunlow Elementary, the loss of their business partner has been devastating. As a business partner, Argus Energy provided playground equipment, beautification and equipment repairs. Additionally, Argus provided the labor and materials for painting the exterior of the school, provided a copier for the school every three (3) years and many other benefits for the school.

Rockspring Development, Inc. was a business partner with East Lynn Elementary School. I contacted Ms. Melissa Maynard, principal of East Lynn Elementary School, and she also said that the loss of the school's business partner was a severe blow to the school and its students. Rockspring owners and employees provided many benefits to the school. Playground equipment, a new school sign and classroom improvements were some of the projects undertaken. Additionally, Ms. Maynard said that Rockspring "adopted" the pre-school students and provided additional items for them, including a Christmas Party for all the pre-school students and their families, along with presents for each child. Ms. Maynard stated that the Rockspring family was always willing to help anytime she called on them.

Wayne County's Coal Severance revenues have all but disappeared with the loss of mining operations in Wayne County. As the attached exhibit *(Exhibit No. 1)* shows, from FY 2013 to FY 2016, coal severance revenues declined from $728,500 to $86,523, an 88% loss of coal severance revenue.

Coal severance revenues were used for goods and services that Wayne County's general fund could not support such as an annual grant of $50,000 to one of our six (6) volunteer fire departments that provide ambulance services to our citizens, two (2) police cruisers for the sheriff's department, capital building projects, senior citizens programs, utilities, economic development and many other worthwhile projects. With the loss of this funding, the County Commission has to look to a tight general county budget to provide some of these expenditures.

The loss of general county revenues due to the halt of mining activities is also being felt. During this time, the Wayne County Commission saw increases in health insurance costs, utilities, and property liability insurance, as well as other costs associated with the provision of county services, making the loss of coal tax revenues even more critical to our county. Based upon tax figures compiled by the Wayne County Assessor's office, coal tax revenues by Argus Energy *(Exhibit 3)*, Rockspring Development, Inc. *(Exhibit 4)*, and three coal related industries; Walker Machinery, GE Captial and Lincoln Leasing *(Exhibit 5)*, declined from $1,702,259 to $1,340,986 from 2013 to 2016, a total decrease of 21%. Personal property for this period saw a total decrease of 22%, while real estate taxes for this period decreased by 5%.

An even more telling statistic is the increase in tax delinquencies by these industries for this period. In 2015 and 2016, Rockspring Development has a total tax delinquency of $2,426,475, while Argus Energy and Lincoln Leasing have tax delinquencies of $380,809 and $137,147, respectively. This resulted in a net loss of $3,182,431 in coal tax revenues to Wayne County *(Exhibit 2)*. This loss constitutes a $2,371,564 loss in tax revenues to the Wayne County Board of Education and a $810,867 loss in general county revenues – revenues which are critical for our education system and for general county operations.

I have worked at the Wayne County Courthouse for thirty-nine and a half years, thirty-one of which I have served in the elected offices of the County Clerk and County Commissioner. During that time I do not believe that Wayne County has been so challenged to provide for its citizens as it is now experiencing and the forecast for the foreseeable future is bleak.

Respectfully submitted,

Robert E. Pasley, President
Wayne County Commission
Wayne County, West Virginia

Exhibit 1

Wayne County , West Virginia
Coal Severance Revenues FY2013-2016

Fiscal Year	Quarter	75% Allocation	25% Allocation	Total Coal Severance
		FY 2013		
Fiscal Year	**Quarter**	**75% Allocation**	**25% Allocation**	**Total Coal Severance**
2013	1st	$152,442.43	$29,110.17	$181,552.60
2013	2nd	$182,121.77	$42,431.83	$224,553.60
2013	3rd	$121,407.28	$30,861.33	$152,268.61
2013	4th	$133,224.72	$36,899.64	$170,124.36
	Total	$589,196.20	$139,302.97	**$728,499.17**
		FY 2014		
Fiscal Year	**Quarter**	**75% Allocation**	**25% Allocation**	**Total Coal Severance**
2014	1st	$119,790.16	$30,945.62	$150,735.78
2014	2nd	$85,117.91	$30,037.26	$115,155.17
2014	3rd	$66,780.56	$21,291.45	$88,072.01
2014	4th	$72,244.11	$39,389.43	$111,633.54
	Total	$343,932.74	$121,663.76	**$465,596.50**
		FY 2015		
Fiscal Year	**Quarter**	**75% Allocation**	**25% Allocation**	**Total Coal Severance**
2015	1st	$45,200.86	$22,308.14	$67,509.00
2015	2nd	$61,434.62	$31,579.87	$93,014.49
2015	3rd	$29,872.08	$21,951.30	$51,823.38
2015	4th	$47,133.02	$30,805.50	$77,938.52
	Total	$183,640.58	$106,644.81	**$290,285.39**
		FY 2016		
Fiscal Year	**Quarter**	**75% Allocation**	**25% Allocation**	**Total Coal Severance**
2016	1st	$11,818.57	$17,028.07	$28,846.64
2016	2nd	$1,125.78	$23,920.19	$25,045.97
2016	3rd	$0.00	$13,827.22	$13,827.22
2016	4th	$0.00	$18,832.74	$18,832.74
	Total	$12,944.35	$73,608.22	**$86,552.57**

Exhibit 2

Wayne County, West Virginia
Coal Tax Revenues 2013-2016

Argus Energy, Rockspring Development, Inc. & Coal Related Industries

Personal Property

Year	Tax	Appraised Value	Board of Education
2013	$ 1,583,304	$ 112,355,185	$ 1,158,282
2014	$ 1,711,375	$ 110,174,939	$ 1,280,390
2015	$ 1,652,069	$ 100,568,453	$ 1,230,910
2016	$ 1,227,965	$ 82,762,185	$ 914,922

Deliquent Taxes	$	2,944,431
Tax loss to Board of Education	$	2,194,237
Loss of General County Revenues	$	750,194

Real Estate

Year	Tax	Appraised Value	Board of Education
2013	$ 118,955	$ 8,571,256	$ 87,023
2014	$ 143,166	$ 9,022,199	$ 107,111
2015	$ 124,979	$ 7,668,903	$ 93,118
2016	$ 113,021	$ 7,548,764	$ 84,209

Deliquent Taxes	$	238,000
Tax loss to Board of Education	$	177,327
Loss of General County Revenues	$	60,673

Total (All Taxes)

Year	Tax	Appraised Value	Board of Education
2013	$ 1,702,259	$ 120,926,441	$ 1,245,305
2014	$ 1,854,541	$ 119,197,138	$ 1,387,501
2015	$ 1,777,048	$ 108,237,356	$ 1,324,028
2016	$ 1,340,986	$ 90,310,949	$ 999,131

Deliquent Taxes	**$**	**3,182,431**
Tax loss to Board of Education	**$**	**2,371,564**
Loss of General County Revenues	**$**	**810,867**

Exhibit 3

Wayne County, West Virginia
Tax Revenues 2013-2016

Argus Energy

Personal Property

Year	Tax	Appraised Value	Board of Education
2013	$ 292,415	$ 21,065,873	$ 213,919
2014	$ 332,772	$ 20,578,123	$ 248,968
2015	**$ 282,115**	$ 17,782,868	$ 210,196
2016	**$ 98,694**	$ 6,727,485	$ 73,534

Deliquent Taxes	$ 380,809
Tax loss to Board of Education	$ 283,730
Loss of General County Revenues	$ 97,079

Real Estate

Year	Tax	Appraised Value	Board of Education
2013	$ 62,834	$ 4,435,116	$ 45,967
2014	$ 82,994	$ 4,915,916	$ 62,093
2015	$ 57,518	$ 3,534,070	$ 42,855
2016	$ 51,888	$ 3,381,700	$ 38,661

Deliquent Taxes	$ -
Tax loss to Board of Education	$ -
Loss of General County Revenues	$ -

Total (All Taxes)

Year	Tax	Appraised Value	Board of Education
2013	$ 355,249	$ 25,500,989	$ 259,886
2014	$ 415,766	$ 25,494,039	$ 311,061
2015	$ 339,633	$ 21,316,938	$ 253,051
2016	$ 150,583	$ 10,109,185	$ 112,195

Deliquent Taxes	**$ 380,809**
Tax loss to Board of Education	**$ 283,730**
Loss of General County Revenues	**$ 97,079**

Exhibit 4

Wayne County, West Virginia
Tax Revenues 2013-2016

Rockspring Development, Inc.

Personal Property			
Year	Tax	Appraised Value	Board of Education
2013	$ 1,235,375	$ 91,196,788	$ 830,834
2014	$ 1,312,082	$ 89,485,946	$ 981,653
2015	**$ 1,311,370**	$ 82,687,945	$ 977,065
2016	**$ 1,115,106**	$ 76,011,091	$ 830,834

Deliquent Taxes	$	2,426,475
Tax loss to Board of Education	$	1,807,899
Loss of General County Revenues	$	618,577

Real Estate			
Year	Tax	Appraised Value	Board of Education
2013	$ 56,121	$ 4,136,140	$ 41,056
2014	$ 60,171	$ 4,106,283	$ 45,018
2015	$ 67,461	$ 4,134,833	$ 50,263
2016	$ 61,132	$ 4,167,067	$ 45,548

Deliquent Taxes	$	-
Tax loss to Board of Education	$	-
Loss of General County Revenues	$	-

Total (All Taxes)			
Year	Tax	Appraised Value	Board of Education
2013	$ 1,291,496	$ 95,332,928	$ 871,890
2014	$ 1,372,254	$ 93,592,229	$ 1,026,671
2015	$ 1,378,831	$ 86,822,778	$ 1,027,328
2016	$ 1,176,238	$ 80,178,158	$ 876,382

Deliquent Taxes	**$**	**2,426,475**
Tax loss to Board of Education	**$**	**1,807,899**
Loss of General County Revenues	**$**	**618,577**

Exhibit 5

Wayne County, West Virginia
Coal Tax Revenues 2013-2016

Coal Related Industries *(Walker Machinery, GE Capital, Lincoln Leasing)*

Personal Property			
Year	Tax	Appraised Value	Board of Education
2013	$ 55,514	$ 92,524	$ 40,612
2014	$ 66,522	$ 110,870	$ 49,769
2015	$ 58,584	$ 97,640	$ 43,649
2016	$ 14,165	$ 23,609	$ 10,544

Deliquent Taxes *	$	137,147
Tax loss to Board of Education	$	102,608
Loss of General County Revenues	$	34,538

** Balance of deliquent taxes is attributable to Lincoln Leasing*

Real Estate			
Year	Tax	Appraised Value	Board of Education
2013	$ -	$ -	$ -
2014	$ -	$ -	$ -
2015	$ -	$ -	$ -
2016	$ -	$ -	$ -

Deliquent Taxes	$	-
Tax loss to Board of Education	$	-
Loss of General County Revenues	$	-

** Balance of deliquent taxes is attributable to Lincoln Leasing*

Total (All Taxes)			
Year	Tax	Appraised Value	Board of Education
2013	$ 55,514	$ 92,524	$ 40,612
2014	$ 66,522	$ 110,870	$ 49,769
2015	$ 58,584	$ 97,640	$ 43,649
2016	$ 14,165	$ 23,609	$ 10,544

Deliquent Taxes	**$**	**137,147**
Tax loss to Board of Education	**$**	**102,608**
Loss of General County Revenues	**$**	**34,538**

** Balance of deliquent taxes is attributable to Lincoln Leasing* reduction in force, and we were told that we wouldn't have to see that kind of reduction possibly until the beginning of 2016. But unfortunately, that wasn't the case. We were the only company in Arch Coal that had not suffered such a loss in workforce.

Every Monday during our weekly safety meetings we were told how increasingly difficult it was becoming to acquire mining permits due to EPA regulations. Weekly we were told how fortunate we were to not have our pay cut and how fortunate we were to even be mining and still working in general. My duties as a maintenance planner required me to work in an office. That's where I saw numerous state and federal mine inspectors that would come to our jobs as they started their inspections.

With increasing regulations forcing other mines to close, we'd see more and more inspectors on our job. At one point we had 12 inspectors on our property on the same day. They told us that they were all there because they had nowhere else to go. Many times we would see underground inspectors who had no idea what they were looking at because they had never been on a surface mine. What would -- that would lead to more violations because of their interpretation of our laws.

And as we all know, more violations lead to higher costs per ton, higher cost per ton leads to less profits and less profits lead to job loss.

My job also required me to build relationships with vendors that performed various tasks related to our industry. As each major coal corporation has faced bankruptcies and downsizing, every vendor down the line has had to face the same ramifications of those actions. From large companies like Walker Machinery to smaller, locally owned companies like Guyan Heavy Equipment, every vendor that's related to our industry has taken their share of loss due to this administration's EPA overreach. For every coal mining job lost, there are countless more that are also affected.

Heavy equipment vendors face the hardship of trying to keep people working versus making a profit. School administrators face decreased funding because their enrollments have dropped due to people moving to find work. Many commercial businesses locally have closed their doors due to the lack of spending in our region, and many small business owners -- just like my wife -- see a decline in their business because people don't have extra money to pay for things that are outside of their necessities. Our entire state feels the ramifications of a targeted industry.

My family has been very fortunate to have my wife's photography business to help sustain us in what otherwise would be a very dark time, but many coal miners don't have that luxury. They don't have the second income to depend on like we do.

For many years coal mining has produced great wages that have allowed spouses the opportunity to be stay-at-home parents and to be able to do the various things that are vital for a family to operate and function properly. For a long time, my wife didn't -- she didn't have a second job. She didn't have the small business because we felt it was more important for her to be at home to raise our children so we didn't have to put them in daycare, and working in a coal mine provided us that opportunity.

Finally, but definitely most importantly, our family's faith in God as our provider, Jehovah-Jireh, has allowed us to be able to carry on with our everyday life. Our God is able to bring his people through any circumstance that they may face, and we believe that West Virginian's unwavering faith in God is what will separate us from those who mean to do us harm. Our faith in Him will guide us to the type of people and leaders that will ultimately lead us to prominence.

While coal is not a nonrenewable energy source, I believe that He has given us this resource to provide clean and affordable energy. I also believe that He will lead us to elect the type of people that will allow us to use this energy source until a better all-around source is available to compete with, if not eventually take its place.

I want to thank you again for the opportunity to be here today and to speak before this committee, to share concerns on behalf of so many people. In our great state it is a tremendous honor that I don't take lightly, and I pray that I'm able to represent the people of this state in a way that shows the honor and dignity that they truly deserve.

So have a good afternoon and God bless you.

SENATOR MANCHIN: Thank you. That certainly is honor and dignity. Thank you.

Our next panelist is Ms. Karan Ireland with the West Virginia -- she's the program director for West Virginia SUN. She's also an at large member of the Charleston City Council --

Written Statement of Jimmy "Bo" Copley

Former WV Coal Miner

Before the U.S. Senate Environment and Public Works Committee

EPA's Regulations and Their Impact on West Virginia

October 5, 2016

Good afternoon. Senator Capito and esteemed guests, thank you for asking me to be here today. My name is Jimmy "Bo" Copley. I am a 39 year old child of God, husband to 1, father of 3, proud West Virginian, and a former coal miner. I was formerly employed at Coal Mac, Inc. in Holden, WV (a subsidiary of Arch Coal in St. Louis, MO) from July 26, 2004 to September 18, 2015. My duties there were that of a maintenance planner, EMT, rescue team member, and certified surface mine foreman.

Just slightly over 1 year ago, I was notified that my services were no longer required, due to a reduction in force. Although we were told that we shouldn't have to reduce our workforce before the beginning of 2016, we should have known that we wouldn't make it that long without one. Our company was the only one in Arch that had not experienced such a reduction. Every Monday during our weekly safety meetings, we were told how increasingly difficult it was becoming to acquire mining permits due to EPA regulations. Weekly, we were told how fortunate we were to not have our pay cut, and how fortunate we were to be working, in general.

My duties as a maintenance planner required me to work in an office. That's where I saw the numerous state and federal mine inspectors that would come to our job as they started their inspections. With increasing regulations forcing other mines to close, we would see more and more inspectors on our job. At one point, we had 12 inspectors on our property on the same day. They told us they were all there that day because they had nowhere else to go. Many times, we would see underground inspectors who had no idea what they were looking at because they had never been on a surface mine. That would lead to more violations because of their interpretation of laws. More violations lead to higher cost per ton. Higher cost per ton leads to less profits. Less profits lead to job loss.

My job required me to build relationships with vendors that performed various tasks related to our industry. As each major coal corporation has faced bankruptcies and downsizing, every vendor down the line has had to face the ramifications of those actions. From large companies like Walker Machinery to smaller, locally owned companies like Guyan Heavy Equipment, every vendor that is related to our industry has taken their share of loss due to this administration's EPA overreach. For every coal mining job lost there are countless more that are also affected. Heavy equipment vendors face the hard ship of trying keep people working versus making a profit. School administrators face decreased funding because their enrollments have dropped due to people moving to find work. Many commercial businesses have closed their doors due to the lack of spending in our region. Many small business owners, just like my wife, see a decline in their business because people don't have the extra money to pay for things outside their basic needs. Our entire state feels the ramifications of a targeted industry.

While my family has been fortunate to have my wife's photography business to help sustain our family in what would otherwise be a dark time, many coal miners don't have that second income on which to depend. For many years, coal mining has produced great wages that have allowed spouses the opportunity to be stay at home parents and to be able to do the various things that are vital for our families to operate and function properly.

Finally, but definitely most importantly, our family's faith in God as our Provider (Jehovah Jireh) has allowed us to be able to carry on with our everyday life. Our God is able to bring His people through any circumstance they face, and we believe that West Virginians' unwavering faith in God is what will separate us from those who mean to do us harm. Our faith in Him will guide us to the type of people and leaders that will ultimately lead us to prominence. While coal is not a renewable energy source, I believe that He has given us this resource to provide clean, affordable energy. I also believe that He will lead us to elect the type of people that will allow us to use this energy source until a better, all-around source is available to compete with, or eventually, take its place.

Thank you, again, for the opportunity to speak before this committee today. To share concerns on behalf of so many people in our great state is a tremendous honor that I don't take lightly, and I pray that I am able to represent my brothers and sisters in a way that shows the honor and dignity that they deserve. Have a good afternoon, and may God bless you.

MS. IRELAND: That's correct.

SENATOR CAPITO: -- and on Urban Renewal in Charleston.

MS. IRELAND: Yes.

SENATOR CAPITO: So you're my city councilwoman.

MS. IRELAND: Yeah. Absolutely.

SENATOR CAPITO: Welcome.

MS. IRELAND: Thank you, Chair Capito.

SENATOR CAPITO: And yours too.

MS. IRELAND: That's right.

Thank you Chair Capito and Senator Manchin and Congressman Jenkins for the opportunity to talk here today. So I'm talking to you as both a person who works in renewable energy and also as an elected official that is responsible to my constituents and who knows intimately what it's like to fight to retain and attract population and make sure that people have a way to make a fair living. And I'm also here as a proud West Virginian. I -- and I really appreciate hearing Mr. Copley's comments.

West Virginia SUN is a nonprofit that helps communities start their own solar co-ops. So when people are interested in going solar, that can be a --

sometimes complex process if you don't know what questions to ask. So we help communities come together and learn more about solar power, and we help them with competitive bids and help them ultimately install solar arrays -- usually on their homes but sometimes on their businesses.

And part of our overall goal is to scale the solar industry in West Virginia, and I wanted to talk a little bit about the economic opportunities related to increasing renewable energy and energy efficiency as part of West Virginia's compliance under the Clean Power Plan.

When I started with West Virginia SUN one year ago -- just a little bit over a year ago, as I said, we'd go around the state and help different communities -- like Morgantown had a successful co-op, Fayette County, Monroe County -- and we solicit bids. And when I started, it was almost impossible to get a bid from a West Virginia company. And I'm happy to say that a year later, almost all of our bids come from people working in West Virginia -- West Virginians who are certified solar installers.

And that's exciting, but it just hints at what's happening nationwide. Renewable energy jobs have grown. They've outpaced all other job creation -- forms of job creation by a factor of 12, and so we expect to see that start happening in West Virginia as demand grows.

As a member of Charleston City Council, like I said, I'm familiar with the challenges of population loss and what that does to the tax base, what it does to rate payers, and we are consistently seeking new ways to attract and retain young families. It's clear that West Virginia's economy is in transition and has been in transition due to a convergence of factors, and so I'm here today, I guess, just to say that I think we need to take advantage of the opportunities in some of these emerging energy sectors while we have the chance.

Finally, as a West Virginian, I understand and appreciate how important coal is to our state and our very identity. I have felt the frustration of talking to friends from out of state who think they have all the answers to climate change or energy policy, but they don't seem to appreciate that they owe -- we all owe a debt of gratitude for every modern convenience that we have. And that's to the people who have mined coal -- mined coal in this state, and I do appreciate that. And I'm proud to have stood with UMW workers in demanding safe work practices and the payment of benefits that they worked hard to earn.

Compliance under the Clean Power Plan does not mean right now at least no coal. We truly can have an all-of-the-above energy portfolio and at the same time take advantage of the job and wealth creation that comes with investment in emerging energy sectors. In this way, West Virginia can continue to be a leading energy state.

We have the flexibility to do that. We have flexibility in how we comply. And energy efficiency and renewable energy should be central to the plan for compliance so that we can at least enjoy the economic gains and the sharp increase in clean energy jobs that we've seen across the rest of the country, and will also help mitigate the negative consequences we see related to compliance.

And I want to thank you for having me today. I also like to be in Southern West Virginia so thanks.

SENATOR CAPITO: Thank you very much.

And our final panelist is -- participated in a similar panel that we had in Morgantown, and I appreciate that. And I appreciate that Mr. James Van Nostrand has returned. He's a professor of law and

Testimony of Karan Ireland
Program Director, WV SUN

U.S. Senate Committee on Environment and Public Works
Subcommittee on Clean Air and Nuclear Safety
Field Hearing in Logan, WV
October 5, 2016

"Examining the Local Impacts of EPA's Climate Regulations"

My name is Karan Ireland. I am the Program Director of WV SUN. WV SUN is a project of Community Power Network (CPN), a national nonprofit that helps communities start their own solar co-ops, protect their right to produce power, and implement policies and project models that expand access to solar energy. I am here today to testify about economic opportunities related to increasing renewable energy and energy efficiency as a part of West Virginia's compliance under the Clean Power Plan.

WV SUN works to scale the solar industry in WV by implementing solar cooperatives in communities across the state. Each solar cooperative is led by local community partners and allows each community to coalesce around goals for local economic development. Community members seek us out when they want to save money by going solar, create local jobs, and attract and scale employment opportunities with solar companies in their area.

WV SUN is committed to supporting and stimulating a growing competitive and consumer friendly solar market. Our methodology of gathering, organizing and educating homeowners provides an essential cost-saving service for solar companies. By finding, screening and educating potential customers we stimulate solar companies to transition from a small-staff, high-margin, low-volume business model to a larger staff, low-margin, high-volume business. We continually see the companies we work with scale up – from small mom-and-pop operations to significant companies employing 25 or more employees.

We recognize that renewable energy sources and energy efficiency programs create new employment paths for area residents, and help these counties generate wealth and keep this wealth in the local economy. WV SUN's co-op model is intended to help consumers go solar, but is also intended to jumpstart the West Virginia solar industry and create demand for additional solar jobs. Likewise, energy efficiency improvements create jobs and a demand for skilled labor. Because the State is allowed flexibility in how it complies with the CPP, we believe that renewables and energy efficiency measures should be a central part of compliance, in order for West Virginia to reap the rewards of these two, virtually untapped job markets.

West Virginia, along with its neighboring Appalachian states, is in the midst of a critical economic transition that has been caused by a number of converging factors. There has been prolonged underinvestment in local small businesses, job skills training, energy and economic diversification. Many communities face an acute need for more, well-paying jobs and a skilled workforce that can fill those jobs. West Virginia has lost jobs and population for the past two-three years, and the state has the lowest labor force participation rate in the country, at just 53% (http://www.be.wvu.edu/bber/outlook_pdfs/WVEconomic-Outlook-2016.pdf). The 2015 annual unemployment rate for the six counties we plan to work in for this project was between 4.7% and 7.3% (http://data.bls.gov).

These are large challenges, as are the challenges created by the provisions set forth in the Clean Power Plan, and will require numerous solutions from across sectors and geographies. These solutions should include increases in renewable energy and energy efficiency improvements. Right now, West Virginia ranks near the bottom on scorecards for renewable energy deployment and energy efficiency gains. The potential for growth in these industries is significant.

For instance, the solar industry is growing exponentially around the country as prices have dropped and demand has soared. Between 2009 and 2014, the cost of going solar dropped by 50% (https://emp.lbl.gov/sites/all/files/lbnl-188238_2.pdf), and research groups estimate that prices will continue to fall, possibly dropping another 40% by 2020. This shift has happened in conjunction with tremendous growth in solar deployment, and in solar jobs. Since 2009, the installed capacity of residential-scale solar in the U.S. has increased roughly 900%, and the number of U.S. solar jobs has increased 123% (http://www.thesolarfoundation.org/national).

The American Council for an Energy-Efficient Economy (ACEEE) estimates that there could be a net increase of 1.3 to 1.9 million jobs in energy efficiency industries across the country by 2050, if the United States would invest heavily in energy efficiency. Right now, ACEEE ranks West Virginia 44th on its energy efficiency scorecard, reinforcing the notion that there could be major job growth in this sector if the State were to make it a central part of its compliance plan under the CPP.

Renewables and energy efficiency have the potential to make a huge impact not only in changing how communities obtain and use energy, but in generating wealth within communities. The economic development opportunities presented by renewables and energy efficiency programs fall into two categories: (1) job creation, and (2) wealth creation and retention.

Economic Development Opportunity #1: Job Creation. Renewable energy companies require a wide variety services, including: system design, engineering, installation, financing, sales, marketing and legal support. Other potential job functions include operations, and project management. The solar industry, in particular, includes over 40 different career paths across four sectors, presenting ample opportunities for both skilled and unskilled workers (http://irecsolarcareermap.org). Military skills also translate particularly well to the solar industry, and a number of programs exist to support solar jobs training for veterans (http://www.thesolarfoundation.org/solar-ready-vets).

A study by the Solar Foundation demonstrated that wages paid to solar workers are competitive with similar industries and provide many living-wage opportunities. The average wage in the industry is $20-$24/hour, and internal staff earn approximately $44/hour. The solar industry is also adding workers at a rate 12 times faster than the overall economy, and accounted for 1.2% of all jobs created in the U.S. in 2014. In 2014, West Virginia had only 15 solar companies, but by December 2015 this had nearly doubled to 26 solar companies, which employ 350 people in the state. Building demand for solar energy will spur this growing market, injecting more investment into each county's economy and creating more well-paying, locally-based solar jobs.

WV SUN specifically has helped more than 50 West Virginians go solar, facilitated over $1 million of private investment in the local economy, and saved co-op members over $172,000 in energy costs over the lifetime of their solar installations. Since 2014, because of a marked increase in demand for solar co-ops from communities, we are seeing an increasing number of West Virginia installers bidding on the co-op work.

Many of these West Virginia companies are new, and some got their start as crew members for out-of-state companies who had won WV SUN co-op work in the past. For example, one of our most recent West Virginia co-ops, the Tucker/Randolph Solar Co-op, selected local company Praxis Solar & Electric as its installer. Christopher Danz, the founder of Praxis, got his start working for AAT Solar, an Ohio firm, on WV SUN's Fayette, Wheeling, and

Kanawha County co-ops. Now, Mr. Danz and his company are routinely bidding on WV SUN co-ops and offering selection committees yet another local choice for their solar installations.

AAT Solar continues to employ West Virginians looking to transition into solar work. When it won the Kanawha County co-op, two of its regular installation crew were former miners who had recently been laid off in Southern West Virginia.

WV SUN is not the only organization that is seeing the demand for solar drive demand for new solar jobs. Brandon Dennison, CEO of Coalfields Development Corporation, cited their solar certification program as an example of employment created as a result of the increasing demand for solar energy. Requests for solar installations were routinely taking time and manpower away from Coalfields' regular construction business until a decision was made to spin off four employees to create a venture called ReWire Appalachia to handle the solar business. ReWire Appalachia recently installed the largest solar array in the city of Huntington and the crew was led by Robert Adkins, a former coal miner.

In an interview with the Herald-Dispatch, Adkins had this to say, "Right now there are so many good, smart, intelligent men that have been laid off and are being overlooked. Just because you are dirty and you're oiled up and you've got scars on your hands doesn't mean that you are not able to learn and adapt to new things. For me, solar is an opportunity to change the area."

Likewise, energy efficiency retrofits and programs require skilled craftsmen, but also engineers, planners, and financiers to implement them. These are jobs that pay a fair wage, and – by their nature- cannot be outsourced.

Economic Development Opportunity #2: Wealth Creation. Solar is an instrument for homeowners, small businesses and farms to improve their disposable income, and generate wealth. An average home solar installation is valued at roughly $15,000 and generates about $30,000 in value over its lifetime. Revenue comes from both electricity bill savings and solar renewable energy certificate (SREC) payments. The systems also protect owners against future electric rate hikes, and increase a home's value by an estimated $13,000 - $16,000. Therefore, a solar co-op with just 25 members that go solar generates an estimated $750,000 in revenue for the participants, facilitates $375,000 in local spending, and increases home values by up to $400,000. According to studies conducted by the U.S. Department of Energy, the vast majority of this money stays in the community and is reinvested, creating a large multiplier effect (http://www1.eere.energy.gov/wip/solutioncenter/pdfs/clean_energy_investment_cases.pdf). For most of the West Virginia counties that WV SUN works in, this multiplier effect on the local economy is roughly 2.2% – meaning that every dollar saved by co-op participants will create $2.20 in new income for the local community.

Energy efficiency improvements are also a way to keep wealth in a community, as well as one of the best ways to mitigate any potential energy cost increase that compliance with the CPP might precipitate. In 2015, Appalachian Power customers saved 47.8 million kWh as a result of Appalachian Power's energy efficiency programs. Meanwhile, Mon Power and Potomac Edison (MP/PE) programs saved less than 17 million kWh. Given that MP/PE have more customers than Appalachian Power, on a per-customer basis, MP/PE's savings are more than two-thirds lower.

This disparity is a result of the utilities' choices. Appalachian Power has recognized the importance of energy efficiency as a tool for helping consumers save money on bills. Moreover, Appalachian Power knows that energy efficiency is a low cost resource - it is cheaper for

Appalachian Power to invest in energy efficiency programs than to spend money generating that same amount of power.

Lastly, solar and energy efficiency programs can provide additional benefits for low-income homeowners. Thus far, low-income communities have been mostly left out of these markets, even though they can be a long-term, relatively low-cost solution to heating and energy bill assistance. By conserving or generating their own power, low-income families can protect themselves against rising energy rates, increase their monthly disposable income, and create local investment that stays in their community. Additionally, homeowners who have gone through an energy efficiency audit with an education component and members of a solar co-op become more educated about policy issues affecting their lives, and methods for impacting policy makers, such as public meetings and city council hearings. This helps to give low-income individuals a voice where they previously have not had one.

West Virginia should take advantage of the flexibility afforded to states by the Clean Power Plan and create a plan for compliance that really does constitute an "all of the above" energy policy. Energy efficiency and renewable energy should be central to the plan for compliance so that West Virginia can enjoy economic gains and the sharp increase in clean energy jobs that we've seen across the country, as well as mitigate any negative consequences related to compliance.

director of the Center of Energy and Sustainable Development at West Virginia University College of Law. Welcome.

MR. VAN NOSTRAND: Thank you very much, Senator Capito. It's good to see you, Senator Manchin, Congressman Jenkins again. I really appreciate being invited to this hearing. I appreciate having it being held in Logan County, a very beautiful part of the state and a beautiful day for a drive.

I've been in West Virginia only since July 2011. I can't claim to have the deep roots that either Karan or Bo or the other panelists have. I can't claim to have a deep understanding of the history and the culture of the state. I've done a lot in the last five years to catch up and to get up to speed on the issues that are important to West Virginia.

We've had five energy conferences at WVU. Senator Manchin's keynoted at two of them. Senator Manchin and Congressman Jenkins both participated in our last conference via video.

And I got to say, one of things you hear a lot about and Congressman Jenkins mentioned it this morning is the war on coal. And so I've spent a lot of time studying the war on coal -- the drivers for that.

And I guess I characterize them more as the forces that are aligned against the coal industry in West Virginia.

But sticking with the war analogy, here is my take on the artillery that's being deployed in this war. First, the main driver is economics -- primarily cheap natural gas which has been referred to a few times this morning is resulted in massive displacement of coal-fired generation with highly efficient, new combined-cycle combustion turbines. In terms of the artillery in the war on coal, this is the aircraft carrier. It's a Nimitz class aircraft carrier. It's the big dog.

Second is geology. The cheap seams are gone in central Appalachia. We're working our way up the cost curve. Our coal is more expensive. Our mines are less productive. Not because our miners are working less hard, but the -- the productivity is simply gone. The mines are less productive. And in terms of the artillery of the war on coal, this is probably a destroyer. It's damaging but it's not a game-changer.

Third, I would point to climate change. Not in the sense that we get it in West Virginia or even get it in the United States of America. Sometimes I think we'll be debating that until the coasts are under the water due to sea level rise or our valleys and hollows continue to be flooded by extreme weather events. It's in the sense that the world gets it. And they aren't going to be buying any more of our coal for exports.

And Senator Manchin might know this -- India signed the Paris Agreement on Sunday and it was ratified. And it's now going to be taking effect because we now have enough countries that are part of that. But in terms of the artillery of the war on coal, this is maybe a submarine. It's underwater but it's having some impact.

And then finally what we're here to talk about today, it's the EPA and the Clean Power Plan. And I've read documents from this issue by this administration over the last seven years. I would say there's certainly been a hostility towards mountaintop removal, and there's been a clear desire to address climate change through reducing greenhouse gas emissions. Coal is obviously the biggest source of greenhouse gas emissions.

But in terms of its impact, it's something like a shoulder-fired rocket launcher. A tool to be deployed in minor skirmishes, but it's not going to win a war. We're spending all our time and energy talking about the casualties we are suffering in this war from things getting occasionally blown up with a rocket launcher. The real heavy fire is coming from economics and geology and international concern about climate change.

I'd like to talk a little bit more about the battleship -- the aircraft carrier that's the economic forces. There's a revolution underway in the energy industry in the United States. It's not just cheap natural gas. It's wind technology which keeps improving.

Charles Patton spoke at our conference in April and talked about Appalachian Power doing an RFP. $46 a megawatt for a wind farm in southern Indiana. Wind technology keeps getting better. It's more competitive.

Solar photovoltaics have gotten so cheap it's a fundamental threat to the utility business model around the country. In many states customers are not that far from being able to drop off the grid entirely. We have energy efficiency demand response. Using technology to help people manage their energy costs. There's truly a revolution underway in the energy industry.

And what are we doing about it? How are we doing in West Virginia in that revolution? We're getting killed by friendly fire. For the last several years virtually everything that we have done in this state has been in the wrong direction from what it takes us to position ourselves well in this new energy economy.

We've got the alternative renewable energy portfolio standard was passed when Senator Manchin was governor. That was repealed in one of the first actions of the legislature last year. We now have nothing to promote renewable energy in the state. There's nothing to encourage energy efficiency that Karan talks about.

The legislature passed a law to handcuff the DEP in developing a compliant strategy for the Clean Power Plan that would minimize the compliance cost for West Virginia -- be least disruptive to our economy. DEP is handcuffed from adopting the least disruptive plan.

The legislature went after net meterings. Well, the solar potential that Karan talks about is very much in peril because there's a cloud of uncertainty hanging over net metering. We have one utility that's positioning to buy an uneconomic coal plant and put in the rate bases in West Virginia as though we're going to win the war on coal they're putting on the backs of West Virginia rate payers.

It's a new game in the energy industry. It's about zero carbon or low carbon resources, and the markets that are coming into play as a result of that. It's all about carbon allowances and carbon credits. And as West Virginia get's ready to participate in this new game, we have a zero balance in our account.

I know Mr. Trisko talked about subsidizing renewable projects outside the State of West Virginia. It does not need to be that way. We can be building those renewable projects in West Virginia. We can be investing in energy efficiency in West Virginia.

And we can -- we have the resources. We have the people. We can succeed in this new game -- this new energy economy. But we have a tremendous opportunity, but we need to keep our eye -- what are the drivers of this change in order to craft a solution that's going to make us be winners in this new energy economy.

Thank you very much.

SENATOR CAPITO: Thank you. Thank you all very much. And now we'll move to the question portion.

Testimony of James M. Van Nostrand

Professor and Director, Center for Energy & Sustainable Development
West Virginia University College of Law

U.S. Senate Committee on Environment and Public Works
Subcommittee on Clean Air and Nuclear Safety
Field Hearing in Logan, WV
October 5, 2016

"Impacts of EPA Regulations on West Virginia's Coal Production, Employment, Air Quality, Community Wellness, Climate Risk, and Local Government Operations"

My name is James M. Van Nostrand. I am a Professor of Law and Director of the Center for Energy & Sustainable Development at the WVU College of Law. The Center is an energy and environmental research organization founded in 2011, with a focus on promoting practices that balance the continuing demand for energy resources—and the associated economic benefits—alongside the need to reduce the environmental impacts of developing the nation's natural resources. I appreciate the opportunity to provide testimony at this field hearing regarding the impacts of regulations of the U.S. Environmental Protection Agency (EPA) on West Virginia and, in particular, coal production, employment, air quality and community wellness, climate and local government operations.

The Center has been following closely the actions of the EPA in regulating greenhouse gas (GHG) emissions from power plants. The Center's third annual national energy conference, held in February 2014, focused on the then-anticipated proposed rules under 111(d) of the Clean Air Act. The conference, titled "Regulation of CO_2 Emissions from Power Plants: Flexibility and the Path Forward for Coal Dependent States," brought together representatives from government, industry, labor, academia, and the environmental community for a day-long discussion about challenges and opportunities for coal dependent states. Senator Manchin was the keynote speaker at that event and, in his remarks, acknowledged the role of human activity in contributing to climate change. In June 2014, the Center commenced a long-term research project, funded with a grant from the Appalachian Stewardship Foundation and conducted jointly with Downstream Strategies, to examine the impact of the Clean Power Plan on West Virginia, and to develop possible compliance strategies for the Mountain State. The project is part of a broader Center initiative to support constructive dialogue around energy policy choices in West Virginia that would enhance economic opportunity, reduce the environmental impacts of energy development, and put West Virginia on track to meet its CO_2 emission reduction obligations under the Clean Power Plan.

As part of that project, the Center released a Discussion Paper in October 2014 that previewed a preliminary analysis of one potential Compliance Scenario for West Virginia under the proposed Clean Power Plan.[1] In June 2015, the Center released a more comprehensive report analyzing the proposed rule, ***The Clean Power Plan and West Virginia: Compliance Options and New Economic Opportunities***.[2] That report modeled five possible compliance scenarios under the proposed rule, and offered policy recommendations that would help West Virginia better capture the emission-reduction opportunities and economic benefits that could result from developing an all-of-the-above energy strategy. Following EPA's issuance of its Final Rule in the summer of 2015, the Center on July 21, 2016 issued its final report, ***Expanding Economic Opportunities for West Virginia under the Clean Power Plan***.[3] That report includes results from modeling two different scenarios that demonstrate the feasibility of meeting West Virginia's Clean Power Plan obligations, and offers policy recommendations that would help to put West Virginia on track to meet carbon pollution standards while further expanding the state's energy sector, promoting economic growth, creating new job opportunities, and providing energy savings to consumers. My testimony today draws upon many of the findings and recommendations from the Center's July 2016 final report.

The Coal Mining Communities of West Virginia

There is no question that the coal mining communities of southern West Virginia are bearing the consequences of a global transition to clean energy. Demand for coal continues to decline as utilities switch to natural gas-fired generation and renewable energy resources, while regulation of fossil fuel pollutants has become more stringent due to concerns about public health and the global climate. Policymakers at the federal level are recognizing the pressing need for addressing the devastating impacts being borne by coal communities arising from this clean energy transition. President Obama's POWER+ Plan, for example, is a $10 billion initiative to assist communities struggling with the decline of the coal industry in growing and diversifying their economies.[4] In August 2016, more than $38.8 million in funding was awarded to groups in the Appalachian region for efforts in education, infrastructure improvements, business development, manufacturing expansions and workforce training.[5]

To focus attention on the pressing needs of the coal mining communities of West Virginia, the Center focused its fifth annual energy conference on these issues, ***Building a Resilient West Virginia: Taking Control of the Mountain State's Future***, co-presented with the John D.

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[1] *Carbon Dioxide Emission Reduction Opportunities for the West Virginia Power Sector*, CENTER FOR ENERGY & SUSTAINABLE DEVELOPMENT, *available at* http://energy.law.wvu.edu/r/download/201008.

[2] Available at http://energy.law.wvu.edu/files/d/e9535d93-d237-42b2-8305-175ec728fce4/cpp-final-6-14-2015-1.pdf

[3] Available at http://energy.law.wvu.edu/files/d/585cffce-0aea-4535-84d0-7344591cfbb8/cpp-phase-ii-final.pdf

[4] The President's Budget, Fiscal Year 2016, available at https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/fact_sheets/investing-in-coal-communities-workers-and-technology-the-power-plan.pdf

[5] Andrew Brown, *Federal grants from POWER Plus Plan Announced for WV*, CHARLESTON GAZETTE-MAIL, Aug. 24, 2016, available at http://www.wvgazettemail.com/news-business/20160824/federal-grants-from-power-plus-plan-announced-for-wv#sthash.xcsEvMJU.dpuf

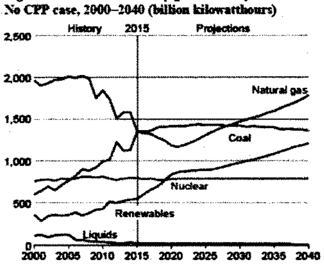
Rockefeller IV School of Policy and Politics. The April 2016 conference featured former Senator Rockefeller as the keynote speaker, and also included video presentations by Senator Manchin and Congressman Jenkins. The program examined fundamental changes underway in the generation of electricity, trends in Appalachian coal production and energy sector employment, followed by a closer look at programs currently being offered in Central Appalachia (e.g., Coalfield Development Corporation, Eastern Kentucky Concentrated Employment Program, Refresh Appalachia) as well as a panel discussion regarding the necessary elements of a successful program for providing transition assistance for coal-reliant communities (which included Eugene Trisko, representing the United Mine Workers). The conference concluded with an examination of the resources available to assist in this transition, with participation by the Benedum Foundation and the Rockefeller Family Fund.

The Drivers of this Transition

While it is beyond dispute that coal communities in West Virginia, and coal-reliant communities across the U.S., have suffered disproportionately harsh impacts from the transition away from coal, the same clarity does not extend to identifying the drivers of this transition. On a national level, the decline in natural gas prices since 2009 has threatened the cost competitiveness of existing U.S. coal-fired generators, resulting in a 25 percent reduction in coal-fired generation in 2015 from its level in the mid-2000s. In its Annual Energy Outlook for 2016, the Energy Information Administration (EIA) modeled two scenarios—one assuming implementation of the Clean Power Plan, and the other without any impacts of the Clean Power Plan. Under its "No CPP" scenario, the coal share of total electricity generation falls from 48 percent in 2008 to 31 percent in 2029, when the natural gas share surpasses it, and then continues to decline, falling to a 26 percent share in 2040. So in other words, even in the absence of the Clean Power Plan, coal generation is essentially flat from 2015 to 2040.

With no Clean Power Plan (CPP), coal-fired generation shows little change from 2015 level

Figure MT-29. Net electricity generation by fuel in the No CPP case, 2000–2040 (billion kilowatthours)

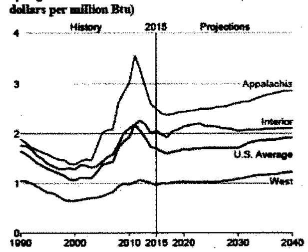


Source: EIA, 2016 Annual Energy Outlook at MT-16

In addition to these national trends, West Virginia bears the impacts of other factors that contribute to the decline of coal production: lower productivity of mines in Central Appalachia, and the retirement of aging coal plants. With respect to the former, EIA's Annual Energy Outlook for 2016 projects that average minemouth coal prices in the Appalachian region will increase by 0.5 percent/year from 2015–40 as mine productivity continues to decline, thereby jeopardizing the cost-competitiveness of West Virginia coal versus other coal-producing regions of the country. With respect to the latter factor, sixteen coal plants operated in West Virginia in 2012, generating approximately 95 percent of the electricity produced in the state. Six of the plants that operated in 2012 have since deactivated, however, representing a loss of approximately 17 percent of the state's total generating capacity. The retiring plants have operated for an average of 60 years and have reached the end of their useful life, absent significant upgrade or retrofit investments.

With declines in mining productivity, average minemouth coal prices increase

Figure MT-60. Average annual minemouth coal prices by region in the Reference case, 1990–2040 (2015 dollars per million Btu)



Source: 2016 EIA Annual Energy Outlook at MT-31

The national trend away from coal fired generation, and production declines in the Appalachian coal mining industry over the long-term, suggest that the broader socio-economic challenge for coal producing states is to prepare for a future that is less dependent upon coal—irrespective of the impact of more stringent environmental regulations. And while coal mining will continue to be an important part of West Virginia's economy for the foreseeable future, the state must look for additional drivers of economic development to mitigate the impacts of the decades-long decline in the coal industry.

The Need for Carbon Regulation

Climate change, largely attributable to increasing concentrations of GHGs in the atmosphere, is the most serious threat facing the planet. The National Climate Assessment, for example, presents compelling evidence of long-term climate trends, and the likely future for the remainder of the 21st century, if we fail to take action to reduce GHG emissions. Within the state of West Virginia, we are already seeing the impacts of climate change, as evidenced by the historic flooding experienced this past summer. The part of the United States that includes West Virginia has seen a 71 percent increase in extreme precipitation since 1958, according to the National

Climate Assessment.[6] According to the Charleston Gazette-Mail, "[s]everal national climate experts said the severity of the Mountain State devastation during the recent flood was almost certainly worsened by human-caused global warming."[7] In my view, doing nothing to address this urgent problem is not an option.

Nor is there is any question that the EPA has the legal authority to regulate GHGs as a pollutant under the Clean Air Act, following the decision of the U.S. Supreme Court in *Massachusetts v. EPA* (2007) and the subsequent endangerment finding by the EPA in December 2009. The EPA moved beyond its endangerment finding to adopt the Clean Power Plan in August 2015, using its authority under Section 111(b) of the Clean Air Act to regulate GHGs from new power plants and under 111(d) for existing power plants. The current litigation regarding the legality of the Clean Power Plan, which consumed six hours of oral argument last Tuesday in the D.C. Circuit Court of Appeals, will likely resolve most of the legal issues regarding the validity of this particular incarnation of carbon regulation.

But even if the Clean Power Plan is ultimately struck down, the guidance provided by the court decision will result in a "new and improved" form of carbon regulation. Making the Clean Power Plan go away does not make climate change go away. Nor would it strip away the U.S. commitment under the Paris Agreement to reduce its GHG emissions by 26-28 percent below the 2005 level in 2025, and to make "best efforts" to reduce emissions by 28 percent. (That would include curbs on carbon dioxide, methane, nitrous oxide, perfluorocarbons, sulfur hexafluoride and nitrogen trifluoride, all of which contribute to global warming.) With India ratifying its participation in the Paris Agreement last Sunday (October 2), 62 countries representing about 52 percent of global GHG emissions are now on board, making it virtually certain that the level of participation will reach the levels necessary to make the Paris Agreement binding on its signatories.

Impact of the Clean Power Plan on West Virginia

The Clean Power Plan is designed to produce a 32 percent reduction of CO_2 pollution from power plants in the U.S. by 2030, as compared with 2005 levels. It sets state-specific emission limits in the form of an emission rate—pounds of carbon dioxide per megawatt-hour of net electricity produced. The final rule also translates rate-based limits into mass-based limits (total CO_2 emissions in tons). West Virginia's Clean Power Plan obligations require emissions reductions from a rate of 2,064 pounds per megawatt-hour in 2012 to 1,305 pounds per megawatt-hour in 2030. Under a mass-based standard, West Virginia would be required to reduce carbon dioxide emissions from 72,319 thousand short tons in 2012 to 51,325 thousand short tons by 2030 if only existing sources are considered or 51,857 thousand short tons if both existing and new sources are considered.

[6] Doyle Rice, *Why the W.Va. Floods Were So Deadly and Destructive*, USA TODAY, June 27, 2016, available at http://www.usatoday.com/story/weather/2016/06/27/west-virginia-floods-storm-train/86429020/

[7] *Gazette Editorial: Floods Part of Climate Change in WV*, July 24, 2016, available at http://www.wvgazettemail.com/gazette-editorials/20160715/gazette-editorial-floods-part-of-climate-change-in-wv

The targets would seem to represent a significant challenge for West Virginia: the rate-based target requires a 37 percent reduction in carbon dioxide emissions per megawatt-hour, while the mass-based approach requires a 29 percent reduction in total emissions from existing sources. In the months following EPA adoption of the Clean Power Plan in August 2015, considerable analyses were undertaken to evaluate the ability of West Virginia to meet the required carbon emissions reductions.

DEP Feasibility Study Emissions Trading Modeling

One such analysis was presented by the West Virginia Department of Environmental Protection (DEP) pursuant to a legislative mandate enacted during the 2015 legislative session. House Bill (HB) 2004, codified at West Virginia Code § 22-5-20, included a number of provisions associated with Clean Power Plan implementation in West Virginia. Among other things, HB 2004 directed the West Virginia DEP to prepare a feasibility study regarding the state's ability to comply with the Clean Power Plan, and to submit this study to the Legislature no later than 180 days following finalization of the federal rule. In compliance with HB 2004, the West Virginia DEP submitted its Feasibility Study to the Legislature on April 20, 2016.[8]

The modeling performed in connection with the DEP Feasibility Study showed that using a mass-based compliance approach coupled with national emissions trading would be the "least impactful" for West Virginia, followed by a rate-based approach with national trading. Importantly, the DEP Feasibility Report concludes that "***compliance with the 111(d) rule is feasible from an economic standpoint under either of these scenarios***."[9]

Modeling of Emissions Trading Programs

Other analyses have confirmed that the availability of multi-state emissions trading—either regionally or nationally—produces relatively low compliance costs for West Virginia. Preliminary modeling by PJM, for example, shows that regional emissions trading allows coal-dominant states to lower their costs of buying allowances and thereby preserve the useful life of existing assets.[10] The PJM analysis shows that although West Virginia's average annual CO_2 emissions would substantially exceed its state mass-based cap during the 2022-2037 period, the availability of relatively low-cost allowances would allow West Virginia's coal plants to continue operating, with the "excess" emissions covered through the purchase of emissions allowances from surrounding PJM states with excess allowances due to a lower-carbon profile.

Analyses performed for the Natural Resources Defense Council (NRDC) by M.J. Bradley & Associates also show that emissions trading on a national scale will result in relatively low

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[8] West Virginia DEP, Feasibility Report for a State Plan under EPA's Clean Air Act Section 111(d) Rule Regulating Carbon Dioxide Emissions from Existing Fossil Fuel-Fired Electric Generating Units (Apr. 20, 2016), available at http://www.dep.wv.gov/pio/Pages/Clean-Power-Plan.aspx [hereinafter "DEP FEASIBILITY STUDY"]

[9] *Id.* at 6 (emphasis added).

[10] PJM Clean Power Plan Modeling Preliminary Phase 1 Long-Term Economic Compliance Analysis Results (May 6, 2016).

allowance prices.[11] In fact, under a national trading scenario, the allowance price would be zero through 2025 and would rise only to \$4.14 per ton in 2030 (assuming current levels of energy efficiency savings). Scaling up energy efficiency programs would lead to even lower allowance prices, to \$2.97 per ton. Importantly for West Virginia, the M.J. Bradley analysis for NRDC shows that national emissions trading, coupled with increased the level of energy efficiency, results in a reduction in the amount of coal plant retirements.

While it may seem counterintuitive that increasing investment in energy efficiency programs results in a lower level of coal plant retirements, supply and demand in the allowance market drive this result: increased energy efficiency savings result in a greater number of emissions allowances, thereby producing lower allowance costs, which results in lower compliance costs for existing coal plants to continue operating by covering their "excess" emissions with low-cost allowances. The compliance approach modeled by M.J. Bradley is similar to that modeled by PJM: West Virginia's coal-fired power plants would comply by purchasing allowances from other states.

Findings of the Center's Report

The final report performed by the Center jointly with Downstream Strategies, as noted above, modeled two scenarios showing how West Virginia could achieve compliance with the Clean Power Plan:

- **Existing Sources.** This scenario demonstrates how West Virginia could achieve compliance with mass-based compliance targets applied to existing sources only. West Virginia would maintain its role as a major electricity exporter through the use of a mix of generation and demand-side resources. This scenario illustrates how high levels of coal-fired generation can be combined with new natural gas combined cycle plants, modest levels of natural gas co-firing at two coal-fired power plants, and modest levels of new renewable energy and demand-side energy efficiency. This scenario does not address the issue of leakage.[12]
- **Existing Plus New Sources.** This scenario demonstrates how West Virginia could achieve compliance with mass-based compliance targets applied to existing and new sources, thereby directly addressing the issue of leakage. Compared with the Existing Sources Scenario, this scenario includes additional natural gas combined cycle capacity starting in 2030 and additional renewable energy and demand-side energy efficiency starting in 2018. In addition, it includes heat rate improvements at West Virginia's coal-fired power plants. Even with this greater diversification of electricity generation

[11] M.J. Bradley & Associates. 2016. EPA's Clean Power Plan, Summary of IPM Modeling Results with ITC/PTC Extension (June 10, 2016).

[12] As part of compliance with the Clean Power Plan, the EPA requires mass-based state plans to address the issue of "emissions leakage," which results from the incentives under a mass-based plan to shift generation and emissions to new fossil-fired power plants outside the program.) Because nearly 1,900 megawatts of new natural gas combined cycle units are expected to come online in West Virginia before 2021, addressing leakage presents a challenge for West Virginia plan compliance. West Virginia can address the leakage issue by including these new plants under Section 111(d) and using the New Source Complement under the Clean Power Plan, which provides a slightly higher mass-based target to accommodate emissions from new sources.

> sources, coal-fired generation would remain the main source of electricity generation in West Virginia. But by incorporating many other energy resources, West Virginia could actually generate new jobs, tax revenues, and environmental benefits of developing new energy resources, while maintaining its position as a major electricity exporter.

The table below shows the assumptions included in each of the two scenarios. Both involve modest increases in energy efficiency (i.e., utility programs to encourage customers to conserve energy and/or make investments in energy efficiency measures) and renewable energy resources (wind and solar), as well as some co-firing of natural gas at existing coal plants. The scenarios also reflect the projected addition of new natural gas-fired generation in West Virginia. While no natural gas-fired power plants currently operate in West Virginia, a combined-cycle combustion turbine is now being built in Moundsville, and is expected to bring 595 MW of high-efficiency capacity into service in 2018. Moreover, during the past year, Energy Solutions Consortium, LLC, a New York–based company, announced plans to build two additional natural gas–fired plants in West Virginia: a 750-MW plant in Brooke County at Follansbee, fueled with natural gas produced in the Utica Shale, and a 550-MW plant in Harrison County at Clarksbur that will take advantage of the output of the Marcellus Shale. Both plants have an expected in-service date of June 1, 2020.

Measure	Existing Sources	Existing Plus New Sources
Improve heat rates at coal-fired power plants	N/A	3% improvement
Increase non-hydropower renewables	2.8% of total generation by 2030	4.4% of total generation by 2030
Improve end-use energy efficiency	Cumulative savings of 5% by 2030	Cumulative savings of 15% by 2030
Hydropower	2.0% of total generation by 2030	2.4% of total generation by 2030
New natural gas combined cycle plants	595 MW in 2018; additional 1,235 MW in 2020	595 MW in 2018; additional 1,235 MW in 2020; additional 245 in 2030
Natural gas co-firing	15% co-firing at two plants—one in 2020 and the other in 2022	15% co-firing at two plants—one in 2020 and the other in 2022
Electricity exports	2012 exports continue through 2030	2012 exports continue through 2030

Low Compliance Costs—But Is That All?

As described in the preceding section, the Clean Power Plan presents some challenges for West Virginia, but ***achieving the required CO_2 emissions reductions is eminently achievable.*** That seems to be the consensus of the DEP Feasibility Study, the modeling performed by PJM and M.J. Bradley, as well as the report prepared by the Center and Downstream Strategies. But that is not—and should not be—the end of the discussion. ***Are there actions that West Virginia policymakers should be taking to put the state in the position to take advantage of the economic opportunities that will be created by nationwide implementation of the Clean Power Plan?*** The answer is clearly "**YES**!" That is the focus of the "Policy Recommendations" section of the Center's July 2016 final report. As will be discussed below, West Virginia policymakers in recent years generally ***have moved in the wrong direction*** to position the state for compliance with the Clean Power Plan and, more broadly, for the state to participate in the clean energy transformation that is underway nationally, whether we like it or not.

- Rather than provide the West Virginia DEP with all the available tools to fashion a compliance strategy for West Virginia under the Clean Power Plan that will work for West Virginia and will take advantage of the flexibility afforded by the Clean Power Plan, the legislature passed a law in 2015 that severely limits DEP's tools for developing a compliance strategy and creates a situation virtually guaranteeing the imposition of a Federal Implementation Plan by the EPA using its authority under the Clean Air Act.
- Rather than requiring electric utilities in the state to engage in a meaningful long-term planning process that is geared toward keeping rates low for utility customers and taking advantage of all the resource options at the utility's disposal—including energy efficiency—West Virginia law fails to require utilities to treat energy efficiency as a "resource" and to plan with an eye toward keeping rates reasonable.
- Rather than requiring utilities to offer meaningful energy efficiency programs for their customers—and thereby give customers the tools necessary to manage their energy costs—the electric utilities operating in West Virginia are allowed to offer token energy efficiency programs that place the Mountain State near the bottom of all the states in the U.S. with respect to energy efficiency offerings.
- Rather than encouraging the development of renewable resources within West Virginia, the legislature as one of its first actions of the 2015 legislative session repealed the Alternative and Renewable Energy Portfolio Standard, leaving West Virginia without any measures that stimulate the development of renewable resources in the state.
- Rather than encouraging the development of distributed energy resources in West Virginia, and thus allowing West Virginians to participate in the new energy economy created by rapid expansion of distributed solar resources throughout the United States, the legislature in 2015 passed a law directing the West Virginia Public Service Commission (PSC) to ensure that no "cross-subsidization" arises from the state's existing net metering policies. The effect of this law was to create a cloud of uncertainty over what could be a vibrant market for utility customers in West Virginia seeking resources to generate their own electricity and help manage their energy costs. Moreover, West Virginia remains one of the few states in the country that does not allow power purchase agreements or lease arrangements for utility customers seeking to install solar PV panels.

It's time to take decisive action to position West Virginians to be players in this new, clean energy economy. Compliance with the Clean Power Plan regionally and nationally is going to stimulate tremendous economic opportunities, as states compete to generate the zero- and low-carbon resources (e.g., renewable and low-carbon energy sources and expanded energy efficiency programs) that carbon emitters will need in order to achieve compliance with the Clean Power Plan. In other words, West Virginia has an opportunity to generate the "currency" that will be used in the clean energy markets of the future. As described in the DEP Feasibility Study:

> "As part of the system for effecting this change, the EPA rule establishes a form of 'currency' which electric generating units must acquire in order to comply. For states that choose to adopt a mass-based plan, the units of this currency are called allowances. For states that adopt a rate-based plan, the units are call emission rate credits (ERCs). In either system, a generating unit must possess enough currency at the end of the compliance period to enable it to meet the limit for that period. A state plan may allow trading of this currency on an instate-only, a multistate or a national basis. Generally, the wider the market for trading is, the lower the per-unit cost of the currency is anticipated to be. The mass and rate-based markets are structured differently, but both are intended to encourage movement away from high carbon course of electricity to lower emitting sources."[13]

The pathway for compliance with the Clean Power Plan in West Virginia will be a much easier one if West Virginia policymakers start implementing the measures that will produce the "currency" of the energy markets of the future, and thereby enable the state to take advantage of the economic opportunities created by the Clean Power Plan. The recommended actions are fairly straightforward, as discussed in the next section.

Recommended Policies to Increase Economic Opportunities for West Virginians

- <u>Remove legislative restrictions on state plan development</u>

As noted above, West Virginia enacted HB 2004 in 2015, codified at W.Va. Code § 22-5-20. This legislation would severely limit restrict the ability of the West Virginia DEP to take advantage of the flexibility afforded under the Clean Power Plan to develop a compliance strategy that works for West Virginia. A strict interpretation of HB 2004 suggests that DEP could be limited to developing performance standards based solely on the emission reduction potential of heat rate improvements at individual power plants. In its Feasibility Study, DEP took the position that the effect of certain provisions in W.Va. Code §§ 22-5-20-(e) and (f) would limit the compliance approaches that DEP may wish to use in developing a state plan. Specifically, DEP interpreted the statute to allow consideration of only "inside the fence" measures (i.e., modification

[13] DEP FEASIBILITY STUDY at 26.

of individual generating units to improve their performance) and to preclude the trading of ERCs or allowances. The DEP Feasibility Study recommended that state law be changed to expressly permit a mass-based plan with trading as a means of compliance.[14] Removing the limitations imposed in W.Va. Code § 22-5-20 is essential to afford DEP with maximum flexibility to choose among the various compliance options available under the Clean Power Plan when developing a state plan for West Virginia. The preferred path identified by DEP in its Feasibility Study, as discussed above, relies on the availability of trading ERCs or allowances as the least disruptive compliance strategy for West Virginia.

- Issue revised integrated resource planning requirements for electric utilities

Integrated resource plans (IRPs) evaluate a full range of supply- and demand-side resource alternatives for meeting projected electric power demand in order to provide adequate and reliable service to customers at the lowest system cost. This range of alternatives includes, among other things, new generating capacity, power purchases, energy conservation and efficiency, combined heat and power (CHP), district heating and cooling applications, and renewable energy resources.

The "integrated" aspect of IRPs ensures that a utility considers demand-side (e.g., conservation and energy efficiency) and other customer-sited resources (e.g., solar PV and co-generation) on the same footing as the addition of traditional supply-side resources (large, utility-owned generating plants) when it evaluates options for meeting future system needs. West Virginia adopted legislation in 2014 requiring the state's utilities to engage in integrated resource planning. The PSC issued an order in March 2015 requiring West Virginia utilities to submit IRPs by January 1, 2016 and at least every five years after that date. There is nothing in the 2014 legislation or in the PSC order, however, that requires ***integration*** of supply-side and demand-side resources in the development of IRPs.

FirstEnergy's 2015 IRP, for example, fails to integrate energy efficiency as a resource, and in fact concludes that "[p]rograms to reduce demand cannot consistently and reliably fulfill the long term need for supply side resources,"[15] an analysis—or lack thereof—that utterly fails to fulfill the "integrated" requirement of integrated resource planning. FirstEnergy continues to pursue its path of meager energy efficiency savings—0.1 percent per year through 2018—notwithstanding the compelling evidence that energy efficiency is the most cost-effective tool for addressing utility resource needs as well as reducing GHG emissions. In sharp contrast, the Appalachian Power IRP treats energy efficiency as a "stand-alone resource" to be incorporated in an optimum resource portfolio, and it similarly integrates wind and solar resources as economically justifiable supply-side acquisitions.[16]

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[14] *Id.* at 9.

[15] 2015 Integrated Resource Plan, Monongahela Power Company and The Potomac Edison Company, Dec 30, 2015 [hereinafter "FIRSTENERGY IRP"], p. 56.

[16] Appalachian Power, Integrated Resource Plan to the Public Service Commission of West Virginia, Jan. 1, 2016., p. ES-5.

In addition to its rejection of energy efficiency as a resource and its dismissal of renewable resources as "expensive" and "intermittent," FirstEnergy's 2015 IRP lays the groundwork, without any supporting quantitative analysis, for the possible purchase of the Pleasants Power Station—a 1,300-MW coal-fired generating station constructed in the late 1970s and currently owned by its unregulated subsidiary, FirstEnergy Solutions. FirstEnergy's regulated subsidiaries in West Virginia, MonPower and Potomac Edison, would purchase this plant. It is difficult to explain from the ratepayers' perspective how acquisition of another coal-fired generating unit makes sense as a long-term resource strategy, given the carbon constraints imposed under the Clean Power Plan. The acquisition, apart from being completely contrary to the trend of other utilities in the U.S. to divest themselves of coal-fired generation, would result in capacity and energy additions that seem to be far in excess of the needs of the MonPower and Potomac Edison ratepayers. As in the case of FirstEnergy's successful sale of 80 percent of its Harrison Power Station from its unregulated subsidiary to MonPower in 2013, FirstEnergy will likely contend that any excess capacity can be sold in the wholesale energy markets, thereby resulting in benefits for its regulated customers from acquisition of this "low cost producer" from FirstEnergy Solutions. At $57 per MWh,[17] however, this resource will likely not be "in the money" in the competitive PJM energy markets, and West Virginia ratepayers may be saddled with another non-competitive coal plant that, like the Harrison acquisition, contributes to upward rate pressures as the forecasted wholesale revenues fail to materialize.[18] The harsh realities of the competitive wholesale marketplace in PJM can only be expected to worsen for coal plants in the medium-term, given the anticipated addition of nearly 1,900 MW of highly efficient natural gas-fired plants in West Virginia over the next five years.

A robust IRP requirement would ensure that energy efficiency, renewables, natural gas, coal, and other resources are evaluated on equal footing so that West Virginia consumers receive the benefit of a reliable energy system at the lowest system cost over the long term. Well-designed IRP rules would also provide a transparent framework for evaluating and securing the lowest-cost compliance options under the Clean Power Plan.

- Adopt an Energy Efficiency Resource Standard

Energy efficiency programs offer consumers the tools to take control of their energy bills through appliance, equipment, heating, air conditioning, lighting, weatherization, and other upgrades that result in the use of less energy while still receiving the same level of energy service. Twenty-six states (including neighbors Ohio, Maryland, Pennsylvania, and Virginia) have energy efficiency mandates (either by legislation or regulatory order) that require utilities or state agencies to develop programs that help their customers implement end use energy efficiency improvements. The mandates are often referred to as EERSs. Some states require utilities to meet annual energy

[17] FIRSTENERGY IRP, Figure 16 at 53.

[18] A report recently issued by the Institute for Energy Economics and Financial Analysis found that Mon Power customers have borne $164 million in additional costs attributable to the Harrison acquisition. Cathy Kunkel, *Re-Regulating Coal Plants in West Virginia: A Boon to FirstEnergy, a Burden to Ratepayers*, Sep. 2016, available at http://ieefa.org/wp-content/uploads/2016/09/Re-regulating-Coal-Plants-in-West-Virginia_September-2016.pdf

efficiency savings targets, while others require utilities to spend a specified percentage of total retail sales on energy efficiency programs. Even though energy efficiency programs vary by state, they all bring energy savings benefits to consumers.

Unfortunately, utility customers in West Virginia do not have the same opportunity to access energy efficiency programs that customers of those same utilities have in neighboring states. As a result, West Virginia residents pay higher electricity bills than residents in most states and will likely see even higher bills as utilities continue to seek annual rate increases under the power cost recovery mechanism currently in place in West Virginia. In its recent ranking of states with respect to the effectiveness of their energy efficiency programs, the American Council for an Energy Efficient Economy (ACEEE) ranked West Virginia No. 44 out of the 51 states evaluated (including the District of Columbia).[19] West Virginia received a total of 8 points out of the 50 points possible in the ranking system and, remarkably, on the metric of utility program offerings, West Virginia received a ***minus 0.5*** score out of the 20 points possible.[20] According to the ACEEE report, although electric utilities in West Virginia implement efficiency programs, they "achieve low levels of savings," and "the state has not enacted any adjustments to the utility business model to incent utilities to include energy efficiency as part of resource planning."[21]

The adoption of an EERS in West Virginia would provide tangible economic benefits to residents and business and a low-cost emission reduction measure under the Clean Power Plan. West Virginia utility customers should have the same opportunity to access energy efficiency savings as utility customers in neighboring states. Ohio and Pennsylvania require AEP and FirstEnergy affiliates to meet energy efficiency goals, and in Kentucky, customers are benefiting from energy efficiency upgrades through the How$martKY program. How$martKY employs one of the many customer-based financing mechanisms—on-bill financing—to allow customers to pay for the customer portion of energy efficiency retrofits over time with the savings generated from the retrofits. West Virginia should adopt an EERS that requires the state's utilities meet an energy efficiency goal of at least 15 percent by 2030 and that sets goals for achieving a percentage of the cumulative 2030 target at five-year intervals.

- Adopt a Renewable Energy Portfolio Standard

Renewable energy is a rapidly growing component of the U.S. economy and provided the largest portion of new capacity additions and total electric generation in the U.S. in 2014. Renewable energy, including wind, solar, and hydropower, has strong potential for future growth in West Virginia. Twenty-nine states, including Maryland, Ohio, and Pennsylvania, have adopted renewable energy standards to incentivize the development of renewable energy resources in their state and to capitalize on the energy and economic benefits of including these resources as part of

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[19] ACEEE, The 2016 State Energy Efficiency Scorecard, available at http://aceee.org/state-policy/scorecard.

[20] ACEEE, The 2016 State Energy Efficiency Scorecard, West Virginia, available at http://database.aceee.org/state/west-virginia

[21] ACEEE, The 2016 State Energy Efficiency Scorecard, West Virginia Fact Sheet, available at http://aceee.org/sites/default/files/pdf/state-sheet/2016/west-virginia.pdf

a diverse energy portfolio. West Virginia should adopt an RPS that includes binding targets for the development of new renewable energy resources such as wind, solar, and hydropower.

West Virginia enacted its AREPS in 2010, but that law was repealed in 2015. The AREPS required utilities to meet increasing percentages of their electricity supply through either "alternative" or "renewable" energy sources. The AREPS legislation was structured, however, so that utilities could meet the portfolio standard entirely with "alternative" resources–which included burning natural gas, tires, and coal–thereby creating no additional incentive for the development of renewable energy in West Virginia.

The Legislature could adopt a new RPS that requires a percentage of or retail or total electric generation be met with electricity generated from renewable energy sources. The RPS could set a target date of 2030 and provide interim target dates by which increasingly greater portions of the final target must be achieved. An RPS should also incorporate a carve-out requiring a percentage of the renewable energy standards be met with solar energy. Many states throughout the U.S. are moving to integrate more solar PV to take advantage of this increasingly cost-competitive distributed energy resource that brings diversification to a utility's power supply portfolio and provides customers another tool by which to control their energy costs. Incentives such as an RPS with a solar carve-out would have a positive impact on renewable investment decisions, and would stimulate production of valuable zero-carbon "currency."

- Adopt policies that encourage investment in clean distributed generation resources

DG resources are generating facilities (typically not more than 20 MW) that are interconnected to a local distribution system. DG resources include CHP, solar PV, anaerobic digestion, fuel cells, and other small-scale generation resources. These resources are typically owned by customers, not distribution utilities, and are sited at or very close to a customer's home or business. Investment in DG, particularly solar PV, has increased dramatically in recent years as equipment and installation costs have declined significantly. State policies that facilitate interconnection and net metering, remove discriminatory utility tariffs, and facilitate alternative financing structures that provide customers different financing options are important factors in creating a market structure in which the benefits of DG resources can be realized by consumers, utilities, and grid operators.

West Virginia currently has interconnection and net metering policies in place that facilitate the development of DG resources by providing utility customers with certainty as to utility interconnection practices and the revenue they will receive for electricity produced through customer-sited generation. In 2015, however, the Legislature enacted HB 2201, which requires the PSC to ensure that net metering rates do not result in "cross-subsidization" of customer generators by customers who do not generate their own power. The enactment of HB 2201 creates uncertainty and casts some doubt on the prices that utilities will be required to pay for customer-generated power, given HB 2201's prohibition on "cross-subsidization," the complexities of the rate-setting process, and the poor track record of West Virginia utilities with respect to integration of DG resources. Rather than enhancing the ability of individual West Virginians to take control over their energy costs by generating their own electricity, HB 2201 does precisely the opposite—it creates uncertainty and increases the risks associated with investment in DG resources.

In May 2015, the PSC appointed a net metering task force to undertake a review of net metering policies, as required by HB 2201. That task force met for several months thereafter, and PSC staff filed its final report with the PSC in September 2015, recommending generally that "cross-subsidization" be defined narrowly to include only costs "directly incurred" by the utility to accommodate net metering customers—a recommendation that would largely leave the existing net metering provisions in place.[22] Although most members of the net metering task force expressed support for the Staff position, both FirstEnergy and AEP dissented from those recommendations and urged the PSC to adopt a different approach for net metering customers that would impose additional charges (i.e., standby charges) and/or eliminate the utilities' obligation to purchase customer-generated energy at retail rates. One year later, the PSC has yet to act on the recommendations of the net metering task force, and the future of net metering in West Virginia remains uncertain.

Moreover, West Virginia remains one of the few states in the country that does not allow power purchase agreements (PPAs) or lease arrangements for utility customers seeking to install solar PV panels. As a result, customers seeking to install solar panels must bear the full up-front capital costs, rather than have the option available in most other states to contract with a solar developer to lease panels or enter into a PPA that will make distributed solar more feasible for the average homeowner or business.

Impact of EPA Regulations on Air Quality

While not directly related to carbon regulation under the Clean Power Plan, the EPA has also taken action to make the ozone standard more stringent. Relevant to this testimony, West Virginia apparently has achieved compliance with this stronger standard. On October 1, 2015, the EPA revised the primary and secondary ozone National Ambient Air Quality Standard (NAAQS) under the Clean Air Act, strengthening both the standards from 75 parts per billion (ppb) to 70 ppb. (Primary standards are health-based to protect people; secondary standards provide protection against decreased visibility and damage to animals, crops, vegetation and buildings.) The West Virginia DEP announced on Friday that it has recommended to the EPA that the entire state of West Virginia be designated as being in attainment with the new ozone NAAQS. The recommendation is based upon quality assured data submitted by the DEP's Division of Air Quality (DAQ) from its EPA-approved statewide monitoring network. If EPA doesn't modify the state's recommended designation, it becomes effective Oct. 1, 2017. In commenting on DEP's recommendations to the EPA, DEP Cabinet Secretary Randy C. Huffman stated that "the fact that our ozone design values have continued to decrease and we are meeting EPA's most stringent

[22] West Virginia PSC, Case No. 15-0682-E-GI.

ozone standard yet is a great testament to the success of our state and regional air pollution control programs."[23]

Conclusion

There is no question that the coal mining communities of southern West Virginia are bearing the brunt of the nation's transition to a clean energy economy. This transition is driven by a number of factors, only one of which is the role of regulations adopted by EPA under the Clean Air Act, such as the Mercury and Air Toxics Standard (MATS) and the Clean Power Plan. Other drivers include the overall de-carbonization of the nation's electricity supply due to the availability of relatively cheap and plentiful natural gas and dramatic declines in the cost of renewable energy resources, as well as the cost disadvantage of Central Appalachian coal due to the decreasing productivity of coal mines in the region. With respect to the impact of the Clean Power Plan in West Virginia in particular, a number of independent analyses have concluded that the Mountain State can achieve compliance with the required reductions in GHG emissions without significant repercussions to West Virginia's economy. Given the dire economic circumstances currently prevailing in southern West Virginia and the fiscal impacts that flow through to state and local governments as coal production continues to decline, however, ***any*** adverse impact should be avoided.

These adverse impacts can be mitigated, however, by acting promptly to position the state to take advantage of the economic opportunities that will be stimulated by regional and national efforts to comply with the Clean Power Plan. In the words of Albert Einstein, "in the middle of every difficulty lies opportunity." These compliance strategies are going to stimulate tremendous economic activity, as states compete to generate the "currency" of the energy markets of the future, in the form of zero- and low-carbon resources (e.g., renewable and low-carbon energy sources and expanded energy efficiency programs). With an "all-of-the-above" energy strategy, West Virginia can be a successful participant in these carbon markets, and tap into the resulting job creation and economic benefits that will be generated over the coming decades. The pathway for compliance with the Clean Power Plan in West Virginia will be a much easier one if West Virginia policymakers start implementing the measures that will produce the "currency" of the energy markets of the future, and thereby enable the state to take advantage of the economic opportunities created by the Clean Power Plan.

[23] West Virginia DEP, *Data Shows West Virginia Complies with New Ozone Standard*, Sep. 30, 2016, available at http://www.dep.wv.gov/news/Pages/Data-Shows-West-Virginia-Complies-with-New-Ozone-Standard.aspx

I will take my five minutes and ask questions, and then we'll just kind of rotate around. So anyway, I want to thank all of you. Very good.

Mr. Trisko, you know, one thing that I've wondered about and in your testimony you mentioned that if West Virginia participated in an international -- or an interstate trading program to meet the demands of the Clean Power Plan, that we would be subsidizing -- and Mr. Van Nostrand mentioned this too -- subsidizing other types of energy in other types of state. So just in terms of a -- in terms of meeting the Clean Power Plan through trading, I've always thought if we've got 96 percent coal-fired generation, who's going to want to trade with us? Because what do we really have to offer as a state? And I just feel like it disadvantages us even more.

So could you talk a little bit about that for me.

MR. TRISKO: Senator, one of the compliance options that is available under the Clean Power Plan is participation in an interstate trading program, either on a tonnage mass basis or an emission rate basis. And the PJM study found generally that the least cost approach for most of the states it evaluated was the interstate rate approach.

Now, in effect what that requires is the purchase of emission allowances for states that are coal heavy like West Virginia. The purchase of emission allowances from carbon-free generators such as wind and solar.

SENATOR CAPITO: Right.

MR. TRISKO: Now, the economics of wind and solar industry are complex and it depends upon whether you're talking about residential solar rooftop kinds of applications, utility scale solar which is a different and more economic option in the long run, but bottom line is that the renewable energy resources are most cost effective where the renewable energy is located.

And that is, for example, why Iowa is the wind capital of the Midwest because it has tremendous wind resources and will continue to develop those resources. They've been selling emission reduction credits to other states subject to renewable portfolio standards for many years, and they will continue to do so under the Clean Power Plan.

If you want to develop large scale solar applications -- and it's really only the large scale ones that are economically competitive -- you go to where the sun shines with the greatest intensity watts -- kilowatt hour per square meter of land, and that's not in West Virginia. It's in Arizona. It's in New Mexico. It's in California. It's in the sunbelt; it's not here.

So, you know, while there may be some applications for rooftop solar and the like in West Virginia, sure -- that doesn't even dent the State's requirements-- reduction requirements under the Clean Power Plan.

SENATOR CAPITO: So let me just follow up on here because I'm going to kind of keep it under my five minutes in the questioning. So basically if you're buying -- if West Virginia would have to buy credits which we would have to do, those credits are -- come at the expense of the state, of the rate payer, and our electricity would go up. I mean, is -- that would be the result of --

MR. TRISKO: Correct. The dollars would leave the State of West Virginia --

SENATOR CAPITO: Right.

MR. TRISKO: -- and this was -- this was a mainstay of the state and non-state petitioners' arguments last week before the Court of Appeals that this rule requires generation shifting in a way that in effect requires utilities in states such as West Virginia to open their checkbook -- which is their rate payers' money -- and subsidize development of new -- and it has to be new -- renewable energy development in other states.

SENATOR CAPITO: Thank you.

Mr. Copley, thank you for your testimony and I'm not sure that anything can be added, but I know you're a proud coal miner and we're proud of you. There's been a lot of talk about young people leaving the state. What are you seeing here anecdotally in your church, in your communities? Are people leaving? Are they able to leave? Can they sell their homes? Can they reposition themselves in other jobs? What -- for the folks who are in positions like you, where are they right now?

MR. COPLEY: We've had a lot of people from our community that have either moved to another state or moved away. We see it in our school systems. Mingo Central High School was once four separate schools in our county, but each of those coal mining counties have -- or excuse me -- coal mining communities have withered over the last several years.

And so you see young people who see jobs not in our area but in other places and they see hopelessness. There's nothing here. There's nothing for us to stay here for. So when they leave school, they leave the state --

SENATOR CAPITO: Right.

MR. COPLEY: -- or they go to other places where economic opportunity is. And not just in energy, just for economic diversity in general.

SENATOR CAPITO: Right. Thank you.

Senator Manchin.

SENATOR MANCHIN: First of all, again, thank you. Thank all of you for being here. I think to Mr. Van Nostrand, I would like to -- a few questions. The first I want to say is on the energy portfolio that was repealed in West Virginia had nothing to do with cap and trade. There's not a single word of cap and trade in that.

Basically, it said we could utilize coal in a cleaner fashion and get credits. We're the only state to say that. I think it was very short-sighted on what was done there because we were moving to where recognizing if coal was used with more technology, that gave us the credits that we were needing and that makes no sense to me.

MR. VON NOSTRAND: Senator, I've been consistent on the point that cap and trade is the complete misnomer as applied to that. But that was used as the basis for repealing it. What it did have was some measures in there that actually encouraged renewable development because you did have greater credits being allowed if it was renewable energy versus alternative energy.

And what the legislature did by repealing it was sending a signal -- we do not want to encourage renewable energy in West Virginia. And that has been a disservice in terms of positioning us for the new clean --

SENATOR MANCHIN: Also in that piece of legislation, it had net metering back which they found out that was pretty popular and they were -- had to pull back off of them. We could get into that all day long.

MR. VAN NOSTRAND: They passed another bill that said that PSE needs to avoid cross-subsidization and so there's a cloud over net metering because what's the PSE going to do in cross-subsidization.

SENATOR MANCHIN: One thing I want to ask you very quickly, sir. Do you think that the U.S. can basically operate and provide the energy this country needs to be a super power, if you will, and an economy of $19 trillion EDP in a fossil-free -- no fossil --

MR. VAN NOSTRAND: No.

SENATOR MANCHIN: -- anytime soon? So --

MR. VON NOSTRAND: No. I --

SENATOR MANCHIN: -- even though -- so I've said this. I want you all to know. I'm not a denier. I think the 7 billion people on the planet Earth have -- we have an impact. We have a responsibility. Now, we can argue all day long how much of an impact humans have, but there's no denying 7 billion people have had an impact. Okay. I'm not a denier.

But when I have people saying that we can run this country -- we can run the world without fossil, they're worse deniers than the people that deny that there's climate change. So until we can get people looking for solutions to move forward, we're not going to solve it. So you're saying that fossil has to be used. Coal and gas and oil will be used.

MR. VAN NOSTRAND: Senator, I looked at the same EIA data that you referred --

SENATOR MANCHIN: Right.

MR. VON NOSTRAND: -- to this morning. And coal will continue to play a dominant role in the nation's future, and I -- what I cited in my testimony was even -- even without the Clean Power Plan, coal is still --

SENATOR MANCHIN: Without tax -- without tax credits, do you think renewables could survive and basically fill what we're -- we're looking at -- EIA's looking down the path at -- renewables are going to have to jump up to 18, 20 percent.

MR. VAN NOSTRAND: Correct.

SENATOR MANCHIN: They're not out of single digits yet. And we keep pouring more and more tax credits to them, when you have coal and natural gas and the things that are carrying the load right now, having no -- very little research being done. That's what we're talking about. We're trying to get some sort of a balance.

We can carry the load, but we need some investment for clean coal technology and how we have more efficient combustibles.

MR. VON NOSTRAND: I think a lot of the effort you make in the way of clean coal technology, I think it's more about innovation. That's the way we solve problems in America is we innovate and we solve things and we invent things. So devoting the resources to clean coal technology -- let's talk about burning the stuff more cleanly and being able to capture the carbon. That's the future. It's not necessarily defending that we need to --

SENATOR MANCHIN: But if the credits -- but if the credits right now is about 2, 2 and a half cents per kilowatt hour --

MR. VON NOSTRAND: 2.5, yes, for wind.

SENATOR MANCHIN: -- for wind -- okay -- if that went away and if the other countries don't adopt the --

MR. VON NOSTRAND: The Paris agreement.

SENATOR MANCHIN: -- tax credits, are they going to be able to fill in and basically bring renewables onboard across the country -- across the world if you will?

MR. VAN NOSTRAND: I think --

SENATOR MANCHIN: Would they adopt that?

MR. VON NOSTRAND: The solar credit is substantial and -- but I've talked to people in the solar industry. I don't think they think it's necessary if solar prices are going down so rapidly that's it's achieving grid parody. Wind out West -- they're bringing wind projects online now for --

SENATOR MANCHIN: We've tried to take it away and they won't let go of it. They keep every penny they can keep.

MR. VAN NOSTRAND: Well, I don't think we want to get in to all the embedded subsidies that are in the tax code that favor the fossil fuel industry. We'd have an interesting debate about that. It would last for days.

SENATOR MANCHIN: So basically you do agree that we cannot operate this country without fossil fuel.

MR. VAN NOSTRAND: I would never take that.

SENATOR MANCHIN: Okay. We've all got that.

MR. VON NOSTRAND: Yes.

SENATOR MANCHIN: So nobody's in denial right now.

Bo, have you been able to have any job offers since you've left? Have you had any opportunities for jobs since you've left?

MR. COPLEY: No, sir. Not really.

SENATOR MANCHIN: No jobs at all. Nothing substantial whatsoever --

MR. COPLEY: No.

SENATOR MANCHIN: -- with benefits or good pay?

MR. COPLEY: No. Nothing that would ever compare to --

SENATOR MANCHIN: Oh, I know the 84, but I'm just saying --

MR. COPLEY: Yeah.

SENATOR MANCHIN: -- the average job -- 30-$40,000 in West Virginia, anything in that neighborhood or above that that you've seen?

MR. COPLEY: No.

SENATOR MANCHIN: Okay. Bob, I don't need to -- I know what's going on. I know how difficult it is. And the bottom line is is that the severance tax -- there was a bill trying to reduce the severance taxes they were already paying.

MR. PASLEY: Even further, even further.

SENATOR MANCHIN: Were you for that or against it?

MR. PASLEY: Oh --

SENATOR MANCHIN: You'd be against that, right?

MR. PASLEY: Much so, yes.

SENATOR MANCHIN: And it's not going to save one coal job.

MR. PASLEY: No.

SENATOR MANCHIN: I've talked to coal people and --

MR. PASLEY: It just benefits those -- it benefits those that get the credits.

SENATOR MANCHIN: So we can't -- basically it'd degradate our tax base that we have now -- what little bit we have left.

MR. PASLEY: Yeah.

SENATOR MANCHIN: And Gene, I guess I would just say to you is that what future do you see where we're going to be at? I mean, we're hoping this -- the Miners' Protection Act, without that, we throw every health clinic in Southern West Virginia -- and most all health clinics --

MR. TRISKO: Most.

SENATOR MANCHIN: -- in jeopardy of staying open. I don't know if people know that or not. If we don't get this passed, our clinics who basically support the retired miners in the communities that have been hit hardest are not going to be able to survive. Is that --

MR. TRISKO: Absolutely correct, Senator. We support -- the UMWA funds support the medical infrastructure in Southern West Virginia.

SENATOR MANCHIN: Yeah. All right. Thank you.

SENATOR CAPITO: All right. Representative Jenkins.

CONGRESSMAN JENKINS: Thank you, Madame Chair. Couple of quick questions.

Ms. Ireland, I appreciate the sensitivity and the concern you clearly expressed in the -- I think, as you say, kind of this challenging balance of an area that you see economic opportunity but fiscal responsibilities in your governing capacity.

I took a look at your testimony. I don't remember hearing it, but you referenced that the average wage in the industry is 20 to $24 an hour in the solar industry. And I guess these are the installers. You referenced a little bit higher for the what you call an inside job. I guess these are the -- kind of the management people in the office.

MS. IRELAND: Right.

CONGRESSMAN JENKINS: Okay.

MS. IRELAND: Sales, engineers.

CONGRESSMAN JENKINS: Well, I was struck by your comment and you did use the words these folks can make, quote, "a fair living." I want people to have a good living. And we talked here a moment ago about the average coal miner making well in excess of $80,000 a year. And I did some quick math. At the 20, 21, $22 an hour for these solar installers that you think we have real opportunity for, I calculate that to be somewhere in the low $30,000-a-year jobs. Is my math wrong?

MS. IRELAND: I haven't done the math. I mean, you multiple it by 2080 hours.

CONGRESSMAN JENKINS: Well, that's part of the challenge. And, again, I recognize that you are advancing the sense that we have of job opportunities in the solar, but I think it's important that we point out that that may be considered as a fair job. It's a $20-an-hour job. And should we be focused on trying to grow $20-an-hour jobs or $89,000-a-year jobs in coal and that's what I think we've giving up.

Mr. Van Nostrand, the -- I'm fascinated that you're referencing and apparently adopting and accepting some of the EIA numbers and the research of the impact of the Clean Power Plan. You're nodding yes now. Part of the research that's been done and all this talk about climate change and saving our planet and the impact of the adoption of the Clean Power Plan and what was argued before the D.C. Circuit Court, as I understand the research and studies suggest that the benefits -- the benefits that are argued that full implementation of the Clean Power Plan by 2100 -- you know, we're in 2016 now -- but full implementation of the Clean Power Plan till the year 2100 -- at the end -- so we're talking 84 years from now with full implementation, the effects of that will be to reduce temperatures by .018 degrees centigrade, and the reduction in the sea level rise will be -- I'm going to get it here -- the equivalent of three pieces of paper.

So the economic devastation that we're going to have over -- it's 2050 -- less than .3 millimeters. So we're going to reduce the sea level rise by 2050 -- 2050, 2-0-5-0 -- by .3 millimeters, and that's three pieces of paper. And for the benefit of that we're going to have a lot more Bo Copleys. We're going to have a lot more bankrupt, challenging situations in our counties. We're going to have retired coal miners who are going to lose their pensions and widows.

Now, I want to ask you, Commissioner -- and you're going to be mad at me for asking this question because the good Senator on the end said cutting that tax isn't going to save one job, and I want to come back and ask you one more time. Do you think tax policies and rates impact employment? I bet you do. I don't know how anybody can think that taxes don't matter to jobs.

MR. PASLEY: Well, they certainly do. That's the whole picture -- the whole business world picture.

CONGRESSMAN JENKINS: That's my understanding, so -- but my -- so I just -- I think it's a tough message. And I understand the unique environment of our fiscal house, and I understand your strong responsibility for the fiscal responsibility of Wayne County. You've got a tough, tough situation. But I want to come back to the taxes that employers pay because I bet you're out there promoting tax breaks to attract employers to come in to Wayne County. I know we do to West Virginia.

MR. PASLEY: We do to a point, but we have given the farm away. We need people to come in now and set up businesses and hire people and put them to work. This coal severance tax, as the Senator was alluding to, was paid on extraction from minerals from our state, our county. Why don't we get some of that back in our county where it come from?

They have raped this state for years from timber and coal and oil and gas. We should be sending rebates back to our citizens like a lot of states do. No one matches our state for natural resources.

CONGRESSMAN JENKINS: I agree.

MR. PASLEY: And so -- but where does the money go? It's not landing in Wayne County, West Virginia.

CONGRESSMAN JENKINS: Well, it's not landing in Wayne County, West Virginia, because the payers are those that -- Alpha, and those employers that aren't there anymore. They're not there, and they're not paying taxes as a result. And we're all paying -- we're all hurting as a result. Wouldn't we like to have those jobs back?

MR. PASLEY: Tell me how to do it. Any cost. Let's get it done.

CONGRESSMAN JENKINS: That's what we're all in this together. Absolutely. To get it done.

MR. PASLEY: But they are -- they have not paid taxes that were due in '14 and '15. We've already operated two years on that. And now they want us to go back and lower those taxes. Below zero? We're not going to send them a rebate check. So there is a -- they're good, corporate citizens.

CONGRESSMAN JENKINS: Yes.

MR. PASLEY: We were blessed with good, corporate citizens, but they have a responsibility as a corporation also to take care of what got them where they are.

CONGRESSMAN JENKINS: I understand. Absolutely. Thank you.

SENATOR CAPITO: I think we're going to do another round if that's okay with everybody. I'm -- as the Chair, I'm mandating that.

MR. VAN NOSTRAND: Senator, could I have a chance to respond? I know Congressman Jenkins had a long statement there, but didn't actually ask me a question that would give me a chance to respond to what he said.

CONGRESSMAN JENKINS: Absolutely.

SENATOR CAPITO: Yes, please.

MR. VAN NOSTRAND: Well, first you talked about the economic devastation. I mean, I think most would see this as huge economic opportunities that are being created, and the question is are we going to position ourselves to take advantage of those opportunities.

Economic devastation -- I don't know how you put a price on the calamities that are occurring around the world as extreme weather events occur with more and more frequency. And the damage that we saw in West Virginia, at least some newspapers in this state have attributed that to climate change and extreme weather events caused by increase in concentrations of greenhouse gases in the atmosphere.

Finally, you're talking about number three on my list of the forces that are affecting West Virginia. You chose to talk about climate change. Let's talk about economics. You talk about economic devastations. Climate change is not doing this to West Virginia. It's economics. It's cheap natural gas. It's cheap renewables. We can -- we can talk about climate change and we can continue to debate about that, but that is not the big driver of what's happening in West Virginia.

SENATOR CAPITO: Thank you. I'd --

MS. IRELAND: Could I also respond -- I'm sorry. He did ask me a question, and I wanted to answer that more fully.

SENATOR CAPITO: Okay. Go.

MS. IRELAND: Congressman, you mentioned the $84,000-a-year jobs, and I understand that that's a good living. But those jobs have been on the decline for a long time, and the Clean Power Plan's not even been enacted. So as a city official, yeah, I will take good jobs that pay between 30 -- and if you look at the $44 an hour -- $80,000 a year and the support that goes along with them -- marketing, legal, engineering, sales. So that's my answer to that.

SENATOR CAPITO: Thank you. All right.

Now, I want to say something. We have before us on the -- in a conference committee right now an energy bill. It doesn't address much of what we've talked about today, but it does address one of the topics that's been brought up as a solution to some of our issues in West Virginia. That's energy efficiency. I think all three of us believe -- and, again, I'm speaking for them but I'm pretty sure we all agree -- energy efficiency is a goal that we should all be trying to achieve both in the county businesses, in our own homes, in our vehicles and everything.

So we are working on this as a Senate at the federal level to push energy efficiency initiatives throughout the entire country, so I agree with that.

Mr. Trisko, let's talk about economic impact. My understanding of -- the Supreme Court came back and disallowed the MATS rule on the premise that -- which for those of you who don't know was the previous rule that was -- that has caused a lot of our power generation to go by the wayside -- and they turned it back because the EPA had not considered appropriately the economic impact that that rule would have and that regulation would have on certain communities. Is that in short the reason?

MR. TRISKO: Senator, that is exactly the reason. The historical context is this goes back to the Clinton administration -- the last days of the Clinton administration when EPA issued a determination regarding the health impact of mercury. And EPA did not make any findings at that time on the implications of controlling mercury -- the cost of controlling mercury from the electric generating sector. And that's what the Supreme Court found to be --

SENATOR CAPITO: So in the Clean Power --

MR. TRISKO: -- inconsistent with the law.

SENATOR CAPITO: In the Clean Power Plan, does not the EPA have the same parameters -- that they have to consider what the cost is? When you look at a small state like West Virginia -- $47 billion of economic output, 11 billion of household income, 229,000 job years by the year 2040.

Now, you know, on the other side, there -- you might say well, it's all going to be worth it because of what we see, you know, moving forward. But we're trying to get a balance here to try to figure out how do you balance the economic and environmental impacts. Was -- were these economic impacts considered in their regulatory assessment? I'm not satisfied --

MR. TRISKO: No.

SENATOR CAPITO: -- they were. In short?

MR. TRISKO: No.

SENATOR CAPITO: No.

MR. TRISKO: No. Those calculations are based at root upon changes in the price of coal and changes in the amount of coal that will be shipped and sold as a consequence of the Clean Air --

SENATOR CAPITO: And these metrics --

MR. TRISKO: -- of the Clean Power Plan.

SENATOR CAPITO: -- were not considered?

MR. TRISKO: No. No. And there was a cursory look at job impacts. And the agency determined that the overall Clean Power Plan would cost for implementation to utilities on the order of 3 to $4 billion a year. I mean, not as large as the MATS rule which had been estimated at $9 billion a year.

SENATOR CAPITO: Right. Right. Commissioner, let me ask you this --

MR. TRISKO: Pardon me. Senator, just -- add one more point.

SENATOR CAPITO: Okay.

MR. TRISKO: Since we are talking about the Clean Power Plan which is ostensively the centerpiece of the administration's climate change agenda, EPA did not make any attempt to estimate the climate-related benefits of the Clean Power Plan. All of its benefits assessments were based upon co-benefits from reductions of criteria pollutants such as ozone, sulphur dioxide, PM 2.5.

SENATOR MANCHIN: More economic.

MR. TRISKO: We've seen it so many times.

SENATOR CAPITO: Thank you.

Mister -- Commissioner, I think I just read just the other day that one of your neighboring counties here in West Virginia has had a lot of -- lost a lot of people. Their school system, suffering the same budgetary constraints that you are in Wayne County, were unable to buy science books. Did you read that article.

MR. PASLEY: Yes.

SENATOR CAPITO: For -- I think they got them for the middle school but they didn't -- couldn't get them for either the younger or the high school. I can't recall that.

What kind of impacts are you seeing? You mentioned about the business partnerships with your schools. But in terms of being able to run a school system, what are you seeing in Wayne County?

MR. PASLEY: Well, now, that department is across the street from the courthouse, and I don't intend to speak for them except the news headline was last week they had a $1.7 million deficit. Then they were in the news because they could not provide substitute teachers in classrooms, and there were doubts that the children were getting a good education because they herd them all into a commons area because they didn't have the substitute teachers to fill the classrooms.

And then they were looking at other -- they are looking at other ways to cut expenditures, but they -- they're under so many mandates, both state and federal, that there's only a certain number that they can cut. So they're facing a $1.7 million loss now, and -- according to the paper -- and that doesn't appear to be anything that's going to change next year even.

SENATOR CAPITO: Let me ask you Karan -- or Ms. Ireland -- sorry, excuse me -- you're on city council in Charleston. Charleston is in -- on the cusp of moving below that critical 50,000 population number --

MS. IRELAND: Right.

SENATOR CAPITO: Right -- for eligibility for CDGB and other federal benefits. And I know the Mayor. I've talked with him a couple times about it, and it is -- I think it could be difficult for you as a councilwoman and others to cope with that. Part of the population loss I'm sure is tied to what's gone on -- even though I couldn't document it --

MS. IRELAND: Absolutely.

SENATOR CAPITO: -- I'm certain is what's gone on in the coal mining situation.

So I guess my question to you would be -- I think -- here, again, I'll speak for all of us -- were all for solar energy. I mean, yeah, that would be great. But as Senator Manchin says, that's not going to replace the 30 percent base load. Sun doesn't shine all the time, and I was just down in McDowell County where it's pretty steep down there. And if you're down in the hollow, you can't --

SENATOR MANCHIN: Couple hours.

SENATOR CAPITO: It takes a while to find the sun even on a sunny day like today. And so -- and I know that you don't believe that, you know, this is going to be the replacement for a whole energy.

MS. IRELAND: Right.

SENATOR CAPITO: You talk about employment as well. Is your business -- you're in a nonprofit. You're then coordinating --

MS. IRELAND: Right.

SENATOR CAPITO: -- manufacturers with installers for personal homes. Does somebody call you on the phone and ask you? I mean, does that bring -- you mentioned in your things that more people are employed in this 300 than have been in the past.

MS. IRELAND: Right. So the -- what we're seeing across the country -- and West Virginia does have 85 percent of the sun that Miami, Florida, has, so we're in a -- we're well-situated to have people go solar -- but as we see demand -- and there are all kinds of reasons that people want to go solar. They might want to save on their electric bills. They might want energy independence. I think someone talked about being off the grid, so with battery backup you have the ability to have more self-reliance.

And as people become more interested and the prices have dropped, we're seeing an upswing in jobs across the country. But it's been slower to come here to West Virginia, and I think -- I think we're starting to see more of that demand. And so my job is to help those homeowners, small businessowners, farmers -- someone -- someone talked about the USDA. They have a great grant program to help those people and connect them with installers.

SENATOR CAPITO: Thank you.

Mr. Copley, let me just ask you a question. This might be -- I hope this isn't too personal for you. But when you were being informed that you were -- as you put it, your services were no longer needed, did you receive a warn notice at the time before that?

MR. COPLEY: No, ma'am.

SENATOR CAPITO: Was that because of the position you held or --

MR. COPLEY: No. I'm not sure. I actually received a severance package in lieu of a warn notice, so I was compensated somewhat.

SENATOR CAPITO: Yeah. Okay. And I'm sure you now -- and there are probably some in the audience here who have received those warn notices -- many people that you know. Could you describe for us -- for the folks that you know -- you didn't personally experience this but you've I'm certain talked with folks -- what that feeling is -- to get that warn notice and know that in 60 days you may or may not lose your job?

MR. COPLEY: We see it a lot, especially in our church. We have a lot of people who work for different organizations, people who work union jobs, people who work non-union jobs so a wide array of people in the industry. And I've heard them talk about their warn notices. I've seen spouses who have worried themselves, fretted and talked to their husbands about well, we need to move. We need to leave. We need to do things because I can't wait around for two months to find out if I'm going to have a job or you're going to have a job. What are our kids going to do? What are they going to be facing? We've seen it quite a lot in our communities.

And fortunately some of those in our church were spared that, and they were able to continue working. But a lot of them received the same fate that I did. They were -- went ahead and given their -- or not given their notice but actually losing their jobs and being laid off.

SENATOR CAPITO: Well, thank you. I would say just -- and I'll turn it over to Senator Manchin after this -- the experience that I've had in talking with folks who find themselves in the same position that you're in and the experience that I've had in talking with communities that are affected, the faith community in West Virginia -- the churches -- if we didn't have such a strong church and belief system -- and you pointed this out in your statement -- to really fill the gaps to help these families, these children that are affected -- so I know your church has been very active, but I think it's important for us to realize what a role our community -- our religious community has played to keep us going.

Senator Manchin.

MR. COPLEY: It's everything for us.

SENATOR CAPITO: Thank you.

SENATOR MANCHIN: Gene, first of all, Gene Trisko, if I may ask you, this question is asked of me quite a bit about -- West Virginia has an environmental target on its back by the environmental community -- not just the environmental community, the State of West

Virginia or in the United States but let's say globally -- right, wrong or indifferent. Do you think that target is placed because of our mountaintop mining, underground mining, combination of both or people just don't like mining at all?

MR. TRISKO: Senator, I don't believe that it has to do with the type of mining that is practiced in West Virginia.

SENATOR MANCHIN: So you don't believe mountaintop --

MR. TRISKO: Mountaintop --

SENATOR MANCHIN: -- brings any more attention?

MR. TRISKO: No.

SENATOR MANCHIN: Okay.

MR. TRISKO: Mountaintop removal gets some media and headline attention, and there are some groups who've focused upon that particular issue. The driving force that is impacting West Virginia's longer-term future in terms of its coal industry is climate change and the perception that the utility industry under the Paris agreement eventually will need to move in the direction of decarbonization. And that's a rather frightening prospect.

But I would note this, Senator, because you mentioned earlier concerns about electric reliability and the EIA data. The EIA data that I used to construct these estimates of the impact of just going to a 45 percent reduction target, which is little more than halfway toward the 80 percent Paris target, those projections by EIA showed that coal nationally would decline from one-third of the supply of electric generation today to 13 percent in the year 2040.

Now, most of the difference would be made up by natural gas and renewables. I think it's appropriate for the Congress to initiate -- to request an inquiry into the impacts -- not only on electric reliability but on our economy generally and particularly of jobs for the unions that I represent.

The impact of a future in which coal is consigned to 13 percent of total U.S. electric generation -- and that represents only about 200 million tons of national production from a billion tons five years ago -- because it has very profound implications. And let me cite a historic precedent that is extremely relevant in the climate context.

The Clinton administration before going to Kyoto for the negotiations in 1997 for the Kyoto

Protocol, commissioned an interagency task force to evaluate the economic job and environmental impacts of the then considered U.S. commitment which was stabilization of U.S. CO2 emissions at 1990 levels. The administration engaged the Department of Energy, the Department of Commerce, FERC, EPA, all of the relevant agencies, hired a slew of consultants to analyze what will happen to this economy if we go down the road of the Kyoto Protocol.

The consultants produced their studies in good faith. The interagency task force evaluated them. Produced a report. Now, the bottom line is this: That that interagency task force commissioned by President Clinton found that the implementation of the Kyoto Protocol would result in the loss of 1 million American jobs.

As a consequence of that analysis, President Clinton had the good sense never to submit the Kyoto Protocol to the Senate for ratification. It was then subject to the terms of S. Res. No. 98, the Byrd-Hagle amendment, and President Clinton knew that that agreement could not be ratified.

Well, here we are again in the context of a Paris agreement -- allegedly a voluntary, nonbinding agreement but that nonetheless which contains very ambitious emission targets that are being taken as if they were legally binding upon this country. It is timely for the Congress to request an assessment on the impacts of a second Paris commitment period.

EIA used this number 45 percent reduction in this analysis. What kind of number should the United States put forward if we do put forward a number and what are the impacts? In short, we need to look before we leap.

SENATOR MANCHIN: Let me say this though -- I've been saying all along, I said, you know if -- in China right now it's not CO2 that's killing people; it's SO2. It's particulates. All of us are old enough remember that you couldn't hang your -- you couldn't hang your laundry on the line -- what would happen back from the plants being closed or if you went to Pittsburgh and drove through the Fort Pitt tunnels, you couldn't see on the other side.

We have cleaned up the environment in the United States more in the last two to three decades then ever in the history of the world. We've done more. SOx, NOx, mercury. Then all of a sudden they hit us with the CO2 and just about shut us out of -- so I'm just saying -- real quick if I may.

Bo, if I may ask you. If you're talking to the laid off miners that we have right now and you're talking to the families that are affected, do they believe that all of this is because of the overreach of the Federal Government, EPA and the Obama administration or do they also recognize that low-price energy such as -- so much abundant reserves of natural gas have been unleashed on us or which ones -- how would you say they weight it?

MR. COPLEY: Well, for the most part, the people that I communicate with, we talk about those things. We talk about the EPA's overreach more than anything, and we understand there's an abundance of natural gas as well. But coal can compete when it's not regulated as much as it is.

From our understanding, coal is regulated far more greatly than natural gas is which makes it harder to produce at an affordable price.

SENATOR MANCHIN: So basically you all would say -- if you're talking to your family and friends and people in that industry, dependent on that industry, it'd be most of the policy -- political policies more so than the market-driven forces.

MR. COPLEY: Yes.

SENATOR MANCHIN: That's what they believe. Okay. I needed to know that.

For the record, Bob, I want to make sure people understand. This severance tax, you're not saying put a new tax on?

MR. PASLEY: No.

SENATOR MANCHIN: You're saying keep the tax that's been there forever just about -- the 5 percent.

MR. PASLEY: They had served a purpose.

SENATOR MANCHIN: Severance.

MR. PASLEY: It sent some money back to the coal-producing counties --

SENATOR MANCHIN: Right.

MR. PASLEY: -- to do the things that we do with them which were good things for our people. I think that's --

SENATOR MANCHIN: For the record, I'd like to say also so you know that when you do any type of mining on BLM which is the Bureau of Land Mines -- which is the United States owns this property -- they charge 7 percent. 7 percent severance on coal from the Federal Government's land. We charge 5 percent.

But I want to say this also. If it wasn't for the coal industry, we would not have ever privatized workers' comp. We would not have moved forward because it was a .56 cent surcharge that the miners and the coal companies paid that took care of a $4 billion deficit we had, and we could have never gotten out of that hole without it. So credit has to be given where credit is due.

MR. PASLEY: Well, and when it was paid, it was removed.

SENATOR MANCHIN: That's exactly -- that came off. I think we paid it off early, so we showed a good stewardship. Thank you. I know we've gone over.

CONGRESSMAN JENKINS: Thank you, again.

SENATOR CAPITO: Yes, Congressman Jenkins.

CONGRESSMAN JENKINS: Bo, one more follow-up. You've articulated very clearly about the plight of those like in your own situation that's been put out of work. One of the things that I hear oftentimes and I've been underground a number of times and talking to coal miners is what they call job scare. So somebody's actually going into the mine today to work. Job scare is you're worried about whether or not you're going to get a layoff slip or a warn notice or pink slip when you come out at the end of the day.

Is that on your mind as an active, working coal miner -- job scare -- and can that impact your ability to work, work safely, focus on what you're doing or are you thinking about how am I going to provide for my family if -- because of job scare, I'm going to come out and be put out of work?

MR. COPLEY: That's definitely on everyone's mind. I mean, even though we talked about it, like I said, in my statement -- we were told we would be okay till the beginning of 2016. Every day we sat down and had a meeting to go over our maintenance plans for the day. We would talk about how we were going to do what we had to do and do it safely. Before our managers would come in and we would already be sitting there, everyone was talking about well, what will you do if they come in and tell us we're having a layoff. What will you do if, you know, they tell us at the end of the day, hey, don't come back?

So it's on everybody's mind. And whether you want it to be or not, it will cloud your judgment. It will make you lose concentration on the things that you do every day that keep you safe.

CONGRESSMAN JENKINS: Thank you.

Gene, you've sat in on the D.C. Circuit

Court to a hearing. One of the aspects of this that I don't understand is that this current administration is advancing rules based on laws that were put on the books 40, 45 years ago. And in the rules that are being put into place today, based on that decades old law, nobody in the past has ever thought -- even conceived that what they're trying to do by rules today was actually authorized by the law 40, 45 years ago.

Am I off base on that? Because, you know, part of my feeling is that this administration is not only using tools in their toolbox, but they're trying to use tools that aren't even in their toolbox and they are taking this interpretation of a law from decades ago in a way that nobody ever conceived of, but they're doing it to advance their ideological agenda.

MR. TRISKO: Congressman, you're spot on. The provision that the administration is relying on in the Clean Power Plan, Section 111(d) of the Clean Air Act is an oddball provision that does not apply either to hazardous air pollutants regulated under Section 112 or to criteria air pollutants regulated under 108, 109 and numerous other provisions of the Act.

EPA has used Section 111(d) on only five occasions in its history -- mainly for municipal landfills and unusual kinds of situations. And 111(d) has been used only once since the enactment of the 1990 Clean Air Act amendments. And that's indicative of its rare status among Clean Air Act provisions.

CONGRESSMAN JENKINS: I have a very strong feeling about this -- another tool that the administration is using in its war on coal, and that is the use and adoption of what they're characterizing as this social cost of carbon. And in my opinion -- and tell me if I'm off base -- they have crafted up this concept of a social cost of carbon to justify economically their -- what I characterize as very onerous regulations that have this economic impact.

So they're -- what can you tell me about this concept of social cost of carbon? Is it in the law? Is it something they've just cooked up to justify their regulations? And it's my understanding that the OMB has even pointedly told the administration with some of their factors you're not even, you know, using the right numbers. What do you know about that issue?

MR. TRISKO: Congressman, it is largely a regulatory invention and not a creature of statute. There are numerous conceptual problems with the social cost of carbon which typically is applied in terms of a dollar value per ton of CO2 avoided and based upon a variety of estimates of avoided damages associated with climate change -- sea level rise, temperature increase, forestry impacts, so and so forth.

And all of those underlying estimates of future damage function and avoidance miss one unavoidable fact and that is that this planet is facing a steadily increasing concentration of greenhouse gas emissions led largely by emissions by developing nations -- not us; not the EU. Those concentrations will continue into the foreseeable future, not withstanding the Paris agreement.

Because the facts on the ground in most of the world -- and I'm not talking about rich, industrial nations like the United States or the EU -- the facts on the ground are that people need energy in order to improve their economic conditions, to alleviate poverty, to provide basic education, healthcare, clean water services. And they will rely on coal as a mainstay of that energy future, and that will increase over time CO2 concentrations.

Our social cost of carbon estimates are purely a fiction of damage avoidance based upon a house of cards of assumptions of damage avoidance. You need to be focused upon what's going to happen in the real world, and the rest of the world is more focused upon putting food on the dinner table at night as a primary objective than they are upon reducing their carbon footprints.

CONGRESSMAN JENKINS: Thank you.

Thank you, Madame Chair.

SENATOR MANCHIN: Well, thank you all. I think we've had a great discussion here. I want to thank the panelists particularly. Many of you traveled long distances so thank you for that.

I would like to say for the record that my ranking member on the subcommittee, Senator Tom Carper from Delaware, expressed his regret that he was unable to attend today. But he's a -- he was actually born in West Virginia, but he represents Delaware. So I wanted to make sure that officially we recognize that Senator Carper did try to make this hearing today.

And with that, we'll adjourn the hearing and thank you all.

(Hearing concluded at 2:58 p.m.)