

**SHALE GAS DEVELOPMENT: MEETING THE
TRANSPORTATION, PIPELINE, AND RAIL NEEDS
TO RENEW AMERICAN MANUFACTURING**

FIELD HEARING

BEFORE THE

**COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE**

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

APRIL 11, 2012

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

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**SHALE GAS DEVELOPMENT: MEETING THE
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WEDNESDAY, APRIL 11, 2012

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Fairmont, WV.

The Committee met, pursuant to notice, at 1 p.m. in the Robert H. Mollohan Research Center, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

**OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA**

The CHAIRMAN. All right. This hearing will come to order. This is an official meeting of the Commerce, Science, and Transportation Committee of the Senate, and we have certain jurisdictions. I want to point out to you that we're going to focus on those things which are within our jurisdiction because that's what you do when you have a hearing. You don't focus on other people's jurisdictions, or if you do, you tend to hear about it. Sometimes you don't care, but sometimes they do.

So we're not going to be, for example, discussing fracking, which I think a lot of people would like to have us discuss and which would be of interest to me. But that's not within our jurisdiction. That's probably more Jeff Bingaman's Energy Committee jurisdiction. But we will be talking about—well, I'll just give my opening statement here.

And Dave McKinley is here, Congressman McKinley. Congresswoman Shelley Moore Capito is on her way. She's about—my guess is about 6½ minutes out, held up by weather. It was snowing this morning, wasn't it? Yes. OK.

Everybody here is very welcome, those who are in the panel and those who are in the audience. More will be arriving. We invited over 1,000 people, and we'll see how many turn up. And they should know—and I'll say this again at the end of the hearing—that the record will remain open for a period of 2 weeks after the conclusion of this hearing so that anybody, you know, the witnesses and also anybody in the audience who wants to submit a statement, that statement will be accepted into the record of the Commerce Committee.

And this may not be our last hearing. I suspect it won't be. In fact, I determine that it won't be, because this is an evolving process.

So I thank Congresswoman Capito, and I certainly thank Dave McKinley, Congressman McKinley. I thank the West Virginia High Tech Consortium and Jim Estep, wherever you are—over in the corner.

And I thank you, Jim, in every way, shape, and form, and your staff and all of those who took the trouble to come here. I don't know from how long or—I don't care. You're here, and that's important.

So we're holding this hearing right in the heart of a region experiencing tremendous opportunity as a result of shale gas development. And you're the experts, and that's why I chose you. And I want to know what's working, what's not working, what we ought to be doing either differently or more of or whatever.

You know what is required to guarantee West Virginians maximum, full, responsible potential in this booming industry. That it will boom is not a question. That it will be responsible is a question, and it's one that we need to probe today while talking about the overwhelming net-plus that I believe exists in this project.

Good morning, Congresswoman Capito. I gave you a lavish introduction.

Ms. CAPITO. A tongue lashing for being late?

The CHAIRMAN. No, no. It went on for about 10 minutes or so.

And so through the Commerce Committee, I'd like to look at the infrastructure needs that we must meet to modernize the rebirth of West Virginia manufacturing down the road. Now, that doesn't appear to be part of a shale gas hearing, but it is. It's very much a part of it—the American—we have a lot of chemical industries. They like to point out that there's some part of natural gas or its components which are involved in 98 percent of American products.

And so I'm very interested because the Commerce Committee is doing a lot of work on manufacturing, so that manufacturing downstream is very much a part of this hearing. And I'll be interested about that.

So every aspect of the development and evolution of this process presents us with both challenges and opportunities. In my experience, the only way to maximize opportunities over the long haul is to understand and tackle the challenges smartly and quickly. It's already begun. There's a lot of activity. A number of trucks whizzed right past me on my way up here.

And so it's well underway. Everybody coming here today probably has experience with or has seen part of the process. And so we need to be extremely responsible. I think the way to do that is to be smart about it up front, to get as much put in place as we can up front. And that, I think, is the best way to protect our future and to make sure that it's good.

We have to have best practices. We have to meet developers' needs. We also have to meet community needs, community angst in some cases and community satisfaction in some cases. But we have to be responsive to those interests. And when something as large as this descends upon us in so many places all at once and

so quickly, we're not accustomed to that. So making sure that we're doing it right is just doubly important.

The three areas that I want to talk about—and I'll try to hold at least my part of the discussion to this because it's the Committee business. I want to discuss roads, and I want to discuss trucks. That's the first part. I know the State and the industry have worked together to address local problems and complaints and other comments. Road damages happen, but they're happening on sort of a different level, as reported by some of our constituents here, but so do repairs and maintenance, and how do you time the mix of that? When do you start doing the repairs? Do you wait until everything is done, until the 3 or 4 or whatever months have passed, and then come back and let people live with all the problems in the meantime, or do you do something earlier?

We passed a bill in the Senate which has a lot to do with the— the transportation bill, which has a lot to do with new qualifications, just as we did in the airline industry. We gave them new qualifications. They can only fly a certain number of hours. They have to have a certain number of hours of sleep. They have to go through tests, obviously blood testing being a part of that. And we've changed the rules of the road, so to speak, in some respects for people who drive. Now, that's Federal, but it will be important if it is passed by both houses.

So I think there are companies that are doing a good job, and there are companies maybe that aren't doing such a good job. Maybe everybody is feeling their way. But on the other hand, this is happening all over the country. So we certainly aren't doing anything new here.

Second, I want to talk about natural gas pipelines, because that's within our jurisdiction, and that's very complex, because they're the large transmission lines, but they're also the feeder lines, the gathering lines. Those are small. Do we have a map of where they are? Can we get a map of where they are? Do we lay down new pipe?

I passed one project coming up on I-79, and that was a feeder, and I asked myself the question: Do we know what's in the way? What is there underground which might conflict with the placing of a pipe? Or is that important? I think it probably is, but that's open for discussion.

Third, I want to talk about the infrastructure needs of manufacturers and chemical facilities that rely on shale gas, including the need for rail infrastructure to support the viable movement of goods to market and for export. It's extremely important, and the railroads are very important in this, and I will have questions for them. And I'm glad that they're represented here, very, very glad that they're represented here.

So the processing of ethane to ethylene is a game changer for jobs. There's no question about that. That's what has everybody so excited. Was I sorry we didn't get the big plant from Beaver, Pennsylvania? Was I happy about that? No, none of us up here were. But it's still a boon for West Virginia, and there's still others that could be coming. I always take that optimistic point of view.

So let's get going here. We have a terrific and diverse group. As I say, it's restricted to these three areas. It doesn't include

fracking, which is the subject of interest on the part of many. And we're fortunate to have the people who are here.

[The prepared statement of Senator Rockefeller follows:]

PREPARED STATEMENT OF HON. JOHN D. (JAY) ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA

Welcome everyone. Thank you for being here today, Representative Capito and Representative McKinley. Thanks also to the West Virginia High Tech Consortium—Jim Estep and your staff. Welcome also the many familiar faces in the audience and all West Virginians.

We're holding this hearing in the heart of a region experiencing tremendous opportunity as a result of shale gas development. You are the experts—you know what's working. And you know what it will take to guarantee West Virginia maximizes the full potential of this booming industry. Through the Commerce Committee, I'd like to look at the infrastructure needs we must meet to mobilize a rebirth of West Virginia manufacturing.

Every aspect of shale development presents us with both challenges and opportunities. In my experience, the only way to maximize opportunities over the long haul is to understand and tackle the challenges smartly. Whether highway issues or pipeline safety, if West Virginia gets it right up front—if we find and follow best practices, meet developers' needs and address community concerns—future success knows no bounds.

You probably saw evidence of shale development on your drive here today. The existence of this gas isn't new, but the technology to access it economically is—and it is creating an economic boom with far-reaching impacts.

I would like to discuss some of the key areas that reside around the perimeter of the drilling process. These are larger infrastructure needs that are of equal importance to gas extraction itself. They're the areas that directly touch our communities and define our success.

There are three main topics I'd like to talk about.

I would like to first discuss roads and trucks. I know the state and industry have worked together to address local road needs, and many are vigilant about repairs and safety. Road damage happens, but so do repairs and preventive maintenance. I'd like to hear more about this process and what it means for transportation infrastructure and safety.

Second, I want to talk about natural gas pipelines. Gas development is happening across a broad region, and my Committee has an interest in the safety of pipelines—which vary in size and function. We need to be vigilant in building and operating them to minimize impact on communities while assuring public safety. I'd like to hear lessons learned, things working well, and what we need to do moving forward.

Third, I want to discuss infrastructure needs of manufacturers and chemical facilities that rely on shale gas, including the need for rail infrastructure to support the viable movement of goods to market and for export.

Each of these three areas leads up to the creation of value-added products here at home. Part of that is the possibility of an ethane cracker, something many of us—the Governor, Legislature and congressional delegation—have been working to attract.

The processing of ethane to ethylene is a game-changer for jobs, especially those in manufacturing and chemical sectors. This potential manufacturing renaissance—growing out of the shale boom—could ripple positive effects across our state for years to come.

So let me kick off our conversation. We are fortunate to have a diverse and knowledgeable set of participants. I would like to go around the table and ask each of you to introduce yourself and, in 2 to 3 minutes, tell us the most important thing we should take away from this discussion. We will accept all written testimony into the official record, so we would love to hear your top points.

After your statements, I'll offer questions on our three main topics to the experts at hand. I may also ask others around the table to weigh in as well.

So let's get started.

The CHAIRMAN. I'd like to go around the table, and this is going to be a "timed test," you know. It's going to be—we're testing you. How long can you hang out? And if you have to make discreet exits, nobody will call attention to that. But everybody, of course, will notice.

[Laughter.]

The CHAIRMAN. So I want to go around the table and—ah, the sheriff is here.

Mr. GRUZINSKAS. Yes, sir.

The CHAIRMAN. That's great. And I want you to introduce yourselves, and I want you to talk for 2 or 3 minutes, which is an impossibility. Look, it started out as 2. I raised it to 3. There was a counterattack to reduce it to 1.

[Laughter.]

The CHAIRMAN. I overruled that flat. But we have to do the mathematics on this and have the testimony and the questions. And I want both of our Congress folks to make opening statements, too.

So try to keep your statements to the 2 or 3 minutes. I'm not shy about using this thing. You can hear that, can't you? So let's go.

Let's go now to Congresswoman Shelley Moore Capito.

**STATEMENT OF HON. SHELLEY MOORE CAPITO,
U.S. REPRESENTATIVE FROM WEST VIRGINIA**

Ms. CAPITO. Well, thank you, Senator, and—

The CHAIRMAN. Oh, I've got to give you the mike. See, that's the one deficiency here.

Ms. CAPITO. Thank you, Senator Rockefeller, for the invitation. I'm particularly pleased to join you and Congressman McKinley for this hearing, because I think we all know the great impact that this is already having on our state. And we want to make sure, as you said, that we do it right, that we capitalize on it and that all of the different stakeholders are at the table, maximizing our potential.

I have a written statement that I would like to submit for the record. I'll save everybody the pain of hearing me talk about it. Generally, I talk about the great job impact that the Marcellus Shale natural gas development has had on our state.

On Monday, I actually did my first real tour of the Marcellus Shale. I went to—Sheriff, I went to the home of my birth in Marshall County, and—because we know that is a very active area, and it was really fascinating for me to see, you know, close hand, right up onto the pads, to see what's being done.

We talked a lot about the infrastructure, so I think that's a really important aspect of it. When you get up on those hills up off Route 2, you realize not only the amount but the weight and the frequency—and some of the discussions that have taken place in Marshall County in terms of the community input in terms of school bus traffic and things of that nature, I think, have already been addressed in some small portion, both by the community and by the companies. And I think that's extremely useful and, obviously, helps the quality of life.

Other issues we talked about, certainly, were the low price of natural gas at this point, and what is the future of that. So we talked a little bit about transportation, using natural gas as a transportation fuel, which would elongate the life, certainly, and would make it a much more prolific use in this country.

But we also talked a bit about—and I know this is a subject both in the House and Senate—on the exporting or possible future of ex-

porting natural gas. And then, of course, the future with the cracker and with the chemical industry—we certainly, in the Kanawha Valley, talked a lot about that and all throughout the state and know what kind of residual benefits this can have.

And as many of you know, and the Senator well knows, my parents live in Marshall County, and they're not doing so great. So I've been up there quite a bit visiting them. And over the course of the year, I can see the difference that this industry has made in the little town of Moundsville and Glen Dale. And one of the big calculators, to me, has been—you know, you see a lot of the lots going up on the side, but the line at McDonald's to get coffee is so long now, you can barely get in. And you can't go across New Martinsville hardly to get across Route 2 if you're going north. So I have a great appreciation—certainly, David does, too, since he lives right in the heart of it.

But I just want to thank you. I think all the issues are extremely important to us. It's a wonderful job potential for our state. It's going to bring our young people home, and it already is beginning to. I see some young faces in the crowd today that I know are here in West Virginia who are going to be able to provide for their families because of an industry that we've been able to grow and that we're fortunate enough to have the natural resource. So I appreciate you letting me join in today.

Thank you.

The CHAIRMAN. Thank you, Congresswoman Capito.
And now Congressman McKinley.

**STATEMENT OF HON. DAVID B. MCKINLEY,
U.S. REPRESENTATIVE FROM WEST VIRGINIA**

Mr. MCKINLEY. Thank you, Senator. I, too, have some written statements. Perhaps in deference with time we won't make all of those right now. But, Senator, thank you very much for hosting this.

And you used the words "game changer." This really is a game changer here in this area of the state. And it's interesting around the country that they don't have the benefit of that just yet, but maybe it's our turn. So now what we have to do is how do we handle it? And we look at the possibilities of these downstream jobs from it. It's just incredible, this opportunity we have here, as long as we manage it properly.

And it takes any of us that have grown up in West Virginia to see already the changes occurring. When you drive around and see the number of vehicles that are here, the jobs that—like you were talking about, the coffee shops are backing up, hotels, restaurants, people filled up, the colleges having to institute new programs for it. I think, obviously, it's thriving well.

We look at how this is going to complement much of the work that's being handled here with Jim Estep and his group, with the High Tech Consortium here. But also look just up the road at the National Energy Technology Lab, the opportunities they're going to have. I know you said it was off limits, but I'm going to still work some comments in about the NETL, because I think that's going to be the heartbeat. A lot of our strength, ultimately, is how we handle our scientific end of it and make sure that not only our

fracking but our whole operation, our clean coal technology and the like—how we’re going to function with that.

The frustrating part for many of us, however, was that the administration slashed the budget. Although they talked about having an all-of-the-above strategy, then they went ahead and cut the budget by 41 percent at the National Energy Technology Lab. With all the work that’s potentially there for it to have that cut—fortunately, last year, thanks to the Senator and other members of the House, we were able to get that money put back in. That was last year.

Now, we’re cut again. We have to push back again to find out—because this truly is something that we have too many opportunities to be lost if we don’t do our technology and make sure that all our operations, our fracking technology and the like, is done in a clean way, and our drilling and our transportation of the gas is done in a proper way. The working men and women across West Virginia are depending upon that, to continue that opportunity.

And we see from ACT—you know how many jobs have been created with that. So, Mr. White, I appreciate very much your being here. Numbers of people—it’s all about jobs. We have an opportunity to have jobs here in West Virginia. And if we just keep working in the right direction and having hearings like this, I think we’re going to have an opportunity.

I’ve got two letters I’d like to submit, also, calling on the President and our leadership in the House and the Senate, if we can put that in the record, Senator.

[The information referred to follows:]

February 8, 2012

Hon. BARACK OBAMA,
President of the United States
Washington, DC.

Dear President Obama,

Coal is our Nation’s most utilized energy source, supplying the United States with nearly 50 percent of its energy needs. The Energy Information Administration (EIA) predicts that coal, together with natural gas and oil, will continue to provide over 75 percent of our Nation’s energy needs for decades to come. With your support of necessary funding for the Department of Energy’s (DOE) Office of Fossil Energy (FE) in your *soon-to-be-released* Fiscal Year 2013 Budget we will be able to ensure our Nation of stability, job retention and growth, as well as the ability to meet our increasing energy needs.

Despite the many challenges and concerns involved in the use of fossil fuel energy it is without a doubt that the innovations provided by our National Energy Technology Laboratory (NETL) have played a leading role in our country’s vast improvements in solving complex energy problems. This cutting edge research and development continues to provide substantial returns on investments, and has made possible countless innovations in both the Coal and Oil and Gas Programs.

To note some successes, FE Research and Development (R&D) has led the research to significantly reduce acid rain, as well as in other advanced pollution controls and mercury emissions reductions; and has led and/or conducted research that created technologies used in 75 percent of our Nation’s largest coal power plants. Today, FE R&D continues to lead the Nation’s carbon capture, sequestration and utilization efforts; and has led efforts in combustion and turbine R&D that led to substantial increases in power plant efficiencies and reductions in harmful power plant emissions.

As President of the United States, you have advocated on many occasions that the United States must be a world leader in developing and exporting advanced energy technologies. In your most recent State of the Union Address, you recognized that: “The development of natural gas will create jobs and power trucks and factories that are cleaner and cheaper, proving that we don’t have to choose between

our environment and our economy. *And by the way, it was public research dollars, over the course of thirty years, that helped develop the technologies to extract all this natural gas out of shale rock—reminding us that Government support is critical in helping businesses get new energy ideas off the ground*". Mr. President, the very research that you spoke of was led by the Office of Fossil Energy's National Energy Technology Laboratory and its predecessor organizations.

In 2011, you remarked that: "When I was elected to this office, America imported 11 million barrels of oil a day. By a little more than a decade from now, we will have cut that by one third."

And again, in 2010, you stated: "We've got, I think, broad agreement that we've got terrific natural gas resources in this country. Are we doing everything we can to develop those?"

Mr. President, how can you reconcile the difference between these statements and the actuality that your Administration has repeatedly proposed reduced funding for Fossil Energy Research & Development? This included *zero* funding for the Oil and Gas R & D Program in your FY2012 budget request, as well as a limited fossil energy R&D portfolio that is narrowly focused on carbon capture and sequestration at the expense of other promising coal research programs. We urge you to reverse this trend and to propose funding a suite of fossil energy programs for FY2013.

Significant reductions in fossil energy funding could cause the immediate loss of thousands of jobs that would be felt throughout many regions and would harm our Nation's economy immediately. Additionally, the possible termination of these important programs would negatively impact fossil energy research and technology development for years to come. America's economic climate and our Nation's success in these technologies and industries compel us to implore you to fully support these programs.

We urge you to provide necessary funding levels for DOE's Office of Fossil Energy and NETL in your FY2013 budget submission which will allow for critical fossil energy research and development. These efforts will help ensure that our Nation becomes more self-sufficient in domestic energy and help the economy sustain existing jobs and create new ones.

Thank you for your consideration and time of our request. We look forward to working with you on this issue. Please do not hesitate to contact us at any time to discuss this matter.

Sincerely,

DAVID B. MCKINLEY, P.E.,
Member of Congress.

MIKE DOYLE,
Member of Congress.

TIM MURPHY,
Member of Congress.

NICK RAHALL,
Member of Congress.

MARK CRITZ,
Member of Congress.

JASON ALTMIRE,
Member of Congress.

SHELLEY MOORE CAPITO,
Member of Congress.

Cc: The Honorable Steven Chu, Secretary, Department of Energy

March 20, 2012

Hon. RODNEY FRELINGHUYSEN,
Chairman,
Subcommittee on Energy and Water
Development and Related Agencies,
House Committee on Appropriations,
Washington, DC.

Hon. PETER J. VISCLOSKEY,
Ranking Member,
Subcommittee on Energy and Water
Development and Related Agencies,
House Committee on Appropriations,
Washington, DC.

Dear Chairman Frelinghuysen and Ranking Member Visclosky,

We are writing to express our concern with the President's Fiscal Year (FY) 2013 budget cuts to the Department of Energy's Fossil Energy (FE) Research and Development (R&D) Program. America depends on fossil resources for over 75 percent of our energy needs and will continue to do so for decades to come. Research through this program focuses on developing affordable, safe and clean mechanisms to enhance and utilize our domestic fossil energy resources in the most efficient manner. We will be able to ensure our Nation of security, job retention and growth, as well as the ability to meet our increasing energy needs.

To note some success, FE R&D has led the research to significantly reduce acid rain, as well as in other advanced pollution controls and mercury emissions reductions; and has led and/or conducted research that created technologies used in 75

percent of our Nation's largest coal power plants. Today, FE R&D continues to lead the Nation's carbon capture, sequestration and utilization efforts; and has led efforts in combustion and turbine R&D resulting in substantial gains in power plant efficiencies and reductions in power plant emissions. Furthermore, as announced in the President's State of the Union address, Federal research in fossil energy has already lead directly to the technologies being used in the environmentally sound development and production of a plentiful American resource: shale gas.

The Secretary of Energy is most fortunate to have at his disposal an in-house collection of experts who live and work with the Utica and Marcellus Shale every day. The scientists at the National Energy Technology Laboratory possess a unique understanding of the techniques used to develop shale gas. DOE would be well-served to continue utilizing its own engineers, researchers, and scientists in pursuit of best practices and sound environmental processes for expanded use of natural gas. For NETL researchers, natural gas development is not some laudable goal written by policymakers in Washington. It's the reality happening in their backyard.

However, the President's FY13 budget proposal does not provide the investments necessary for continuing NETL's research, development, and demonstration of natural gas, clean coal, and oil production. Therefore, we request that you support funding the FE R&D Program at \$735 million. The

President's FY2013 request was \$428 million, which is almost \$25 million less than what was requested in FY 2011. America's economic climate and our Nation's pursuit of energy dependence will require full deployment of the technologies and industries being developed by the Office of Fossil Energy.

Our particular requests within the FE R&D program funding are as follows:

- *\$400 million for the core coal research and development program*, in order to maintain current funding for coal research and development to improve energy and environmental efficiencies at power plants to continue carbon capture utilization and storage research for existing and new power plants, and to advance fuel cells and coal-biomass to liquid fuels;
- *\$160 million for fossil energy R&D Program Direction*, in order to maintain current funding for salaries and the operation of Fossil Energy's National Energy Technology Laboratory;
- *\$50 million for natural gas and oil research & development*, in order to maintain funding to address environmental and related issues associated with unconventional natural gas and oil including shale gas and gas hydrates research;
- *\$17 million for plant and capital equipment*, in order to implement and maintain equipment, systems, and processes to achieve federally mandated energy conservation requirements at all of NETL's laboratory and office facilities;
- *\$8 million for environmental restoration*, in order to maintain and implement federally mandated safety, health, and security programs and systems at all of NETL's laboratory and office facilities; and
- *\$100 million for Clean Coal and Carbon Capture and Storage (CCS) demonstrations*, in order to continue funding initiated in previous appropriations, and to accelerate CCS deployment through large-scale demonstrations, lowering costs and risks for private investment and commercial development.

We appreciate your support you have provided for the Fossil Energy R&D program in the past. Your leadership and commitment to this program during the FY 2012 Appropriations process has saved jobs and helped to move our country closer to energy independence through use of our abundant fossil energy resources. This year we call on your leadership and commitment to this program, hopefully looking favorably upon our request to fund the Department of Energy's Fossil Energy Research and Development Program at \$735 million. Coal, oil, and natural gas are essential for U.S. economic growth and national security. Thank you for your consideration of our request; we will try to answer any questions you may have.

Sincerely,

DAVID B. MCKINLEY,
Member of Congress.

TIM MURPHY
Member of Congress

MARK CRITZ
Member of Congress

MIKE DOYLE
Member of Congress

JASON ALTMIRE
Member of Congress

Cc: The Honorable Harold Rogers, Chairman, House Committee on Appropriations
The Honorable Norm Dicks, Ranking Member, House Committee on Appropriations

Mr. MCKINLEY. We have been signed off on by numbers of people in the House, trying to get the funds restored for the National Energy Technology Laboratory so that we can continue the mission that has been encouraged with that.

And I want to thank you, Senator, because you helped very much last year in protecting those 700 and some jobs we had in Morgantown. So it made a big difference.

But we lost. We lost our first—we just had a swing at the ball on the cracker. I know that the Governor made it his number-one priority and put all his eggs in that basket, and we lost the first round. We'll see what's going to happen with that. There's going to be another one, maybe another two. But let's just make sure that we're prepared.

But what we heard from that—a meeting with the individuals—there were three issues that they said were problems with Shell—rail, river, and roads. And I think that's what, Senator, you're talking about that's going to be the focus of this meeting. And I want to see how we can do better with it. Maybe we missed on the first one, but let's make sure the rail, river, and roads—that the next time that we make sure we're working with the railroads and make sure that we work more cooperatively.

One thing we found, or at least from my perception, was that too many people were working independently, independently instead of working as a group. So we can all be together—if they'll hold—the Senate and House all working together to make this thing happen. So it was just a delay. I think that things—if we can address the long-term gas contracts, the competitive rail access, the tax policy, the utility rate, making sure we keep our utility rates down, to be able to keep it—infrastructure reform.

So I know you're getting ready to gong me on this thing. But from our country roads to our interstate highways, from our locks and our dams, our rivers and our rails, our people are depending on us. So what comes out of this hearing today? I'm anxious to hear your remarks, and we can have some interaction with you, because there are jobs here in West Virginia. They're counting on us.

So thank you all for coming.

[The prepared statement of Mr. McKinley follows:]

PREPARED STATEMENT OF HON. DAVID B. MCKINLEY, P.E.,
U.S. CONGRESSMAN FROM WEST VIRGINIA

Good afternoon and thank you all for being here today. I'd like to thank Senator Rockefeller for holding this timely hearing.

We all should recognize the importance of shale gas development for the state of West Virginia and this country and it how it will contribute to our Nation's pursuit of energy independence.

As we access the Marcellus shale formation and start the Utica shale formation, we are transforming this region into the thriving job-producing mecca that it is capable of including all the ancillary, downstream industries that come with this development.

Drive throughout the state and all of us can be encouraged what we are witnessing: full restaurant parking lots, expanded college and vo-tech training to develop an available work-force, no-vacancy signs on our hotels, and our shopping areas full of patrons in the stores once again.

As a 7th generation West Virginian, I am especially encouraged that West Virginia is becoming this country's energy leader with its vast coal production and newly expanded natural gas production.

Not too far away in Morgantown, West Virginia we have the National Energy Technology Laboratory, a division of the Department of Energy. NETL plays a leading role in solving our country's complex energy problems. NETL has developed the technologies that allow for our natural gas to be safely extracted and used to drive this Nation away from foreign energy sources, everything from hydraulic fracturing to horizontal well drilling.

NETL accomplishes this mission in three ways: (1) through cost shared research with industry, academia, and governmental agencies, (2) through on-site research through its regional university alliance; and (3) through strategic partnership with other organizations such as the ground water protection council and the interstate oil and gas compact commission.

Our staff even has been working with NETL to find research funds to improve the efficiency of the extraction of gas from hardened shale.

But I am sad to say that all of this outstanding research and commercial development is under attack by the current administration.

On one hand, the President, in the State of the Union address, touted all the public research dollars for R&D that helped developed technologies to extract natural gas out of shale rock; he reminded us that government support is critical in helping businesses get new energy ideas off the ground.

However a few weeks later he then slashed NETL's budget by 41 percent.

Last year the administration proposed similar reductions in NETL's research allocation. Fortunately congress was able to restore the funds by working in a bipartisan manner.

Apparently we are being challenged to do so again.

Hard working men and women of West Virginia depend on the jobs provided by our fossil fuel extraction and the construction and manufacturing jobs related to it. They deserve better from their government.

This is why we have a strong bipartisan group of supporters in the house, including Shelley Moore Capito, who continue to fight for necessary funding for NETL to keep America's energy production moving forward and foster these academic-government-industry relationships.

I'd like to enter into the record a letter dated February 8, 2012 to President Obama signed by Reps. Capito, Critz, Doyle, Murphy, Rahall, Altmire and myself asking for the necessary funding for NETL.

Also, I'd like to enter into the record the Programmatic Request Letter dated March 20, 2012 to the House Appropriations Committee, signed by Reps. Doyle, Murphy, Critz, Altmire and myself regarding NETL funding for FY2013.

I encourage Senator Rockefeller to work with us during the appropriations process to protect the nearly 1,700 plus jobs at NETL's laboratories across this country, including approximately 750 in Morgantown.

Obviously all of us were disappointed that Shell Chemicals chose to pursue a site in Beaver County, Pennsylvania for their petrochemical cracker facility instead of West Virginia. Even the Governor had made the location of the shell facility his number one priority of his administration.

In Congress we were told that shell preferred the rail, river, and road access in Pennsylvania over West Virginia. Thanks to hearings like this, perhaps we can correct the perceptions of these three crucial elements of manufacturing and make the adjustments necessary so we don't miss out on any subsequent petrochemical crackers. We need to make sure any remaining investors for cracker facilities make their multi-billion investment right here in our state.

In order to help ensure West Virginia lands a subsequent cracker, our business and political leaders need to stop acting independently and start working together as a team to address any of the concerns such as providing:

1. Long-term natural gas contracts,
2. Competitive rail access,
3. Non-burdensome tax policy,
4. Dependable low utility rates from our power plants,
5. Tort reform, and
6. Any infrastructure deficiencies.

We cannot let the potential for another 12,000 permanent and construction jobs go by the way-side. A united front from all of us in West Virginia will convey our true strength and purpose.

From our country roads to our interstate highways, from our locks and dams on our rivers, to our network of rails, we need ensure West Virginia jobs are created, industries thrive, and our children and grandchildren are given a place to grow up and start a family right here in West Virginia.

We can do better.
Thank you and I yield back.

The CHAIRMAN. Thank you, Congressman McKinley.
And we start off now with the Honorable Paul Mattox, Jr., who is Secretary of the West Virginia Department of Transportation.

**STATEMENT OF PAUL A. MATTOX, JR., P.E., SECRETARY,
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**

Mr. MATTOX. Good afternoon. Good afternoon, and thank you, Senator Rockefeller, for—

The CHAIRMAN. You just press the gray—there's only—you don't have many out there, do you? Just press the gray thing, and the blue light comes on.

Mr. MATTOX. We got it down now. My time start now?

OK. Thank you for the opportunity to participate in this hearing, Senator Rockefeller.

In recent years, as Marcellus Shale extraction began to escalate, the Department of Transportation recognized that these operations were taking a heavy toll on our county route system. These routes were not constructed to withstand the weights to which they were being subjected to. Citizens' complaints became more frequent, and some roads had been rendered nearly impassable.

The department and industry both recognized that the issue existed and needed to be addressed. In 2010, the department formed a committee with industry participation to develop an oil and gas policy that would ensure that West Virginia's transportation network would be preserved.

I'd like to specifically thank from the Division of Highways staff, Marvin Murphy our State highway engineer, Kathy Holtsclaw, and Gary Clayton, as well as Scott Rotruck and Corky DeMarco from industry for their cooperation in developing a policy that doesn't hinder industry's ability to operate and is fair to both parties.

Since March of last year, the Department of Transportation has approved over 275 permits for access to our State highway system. To date, approximately 3,000 miles of West Virginia roadways are being used in gas production. Most of the damages done to our roadways as a result of natural gas drilling are being repaired by contractors directly hired and paid by the gas operators, totaling more than \$20 million worth of repairs last year alone.

Since the oil and gas policy was implemented, more than 50 miles of roads have been repaved. And they're not just putting on a little bit, like we normally do when we have to pave a road. They're putting back 3 and 4 inches of asphalt compared to an inch and a half when the state does it. And at least 5 miles of roadway has already been paved this year.

By agreements with the companies, we have had slides repaired, sight distances improved, curves widened, pipes replaced, and most repair projects have begun within a couple of days, if not the same day, that the damage is reported. Many operators have contractors on stand-by contracts.

Many operators are learning that preventive work done before the starting of well construction is more economical and provides better relations with local citizens. As you can see, the department has received great cooperation from most of the gas operators in

the state. And I believe that the cooperation has been attained by clearly stating the department's expectations in our oil and gas policy.

Thank you again, Senator, Congresswoman Capito, Congressman McKinley. And I'm happy to answer any questions you may have at the conclusion.

[The prepared statement of Mr. Mattox follows:]

PREPARED STATEMENT OF PAUL A. MATTOX, JR., P.E., SECRETARY,
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Good afternoon, and thank you, Senator Rockefeller for the opportunity to participate in this hearing.

In recent years, as Marcellus shale extraction began to escalate, the Department of Transportation recognized that these operations were taking a heavy toll on our county route system—routes that were not constructed to withstand the weights to which they were being subjected.

Citizen complaints became more frequent and some roads had been rendered nearly impassable.

The Department and industry both recognized that the issue existed and needed to be addressed.

In 2010, the Department formed a committee, with industry participation, to develop an oil and gas policy to ensure that West Virginia's transportation network would be preserved.

I would like to specifically thank Corky DeMarco for his cooperation in developing a policy that doesn't hinder industry's ability to operate and is fair to both parties.

Since March of last year the Department of Transportation has approved over 275 permits for access to state roads. To date, approximately 3,000 miles of West Virginia's roadways are being used in gas production.

Most of the damages done to our roadway as a result of natural gas drilling are being repaired by contractors directly hired and paid by the gas operators, totaling more than \$20 million dollars worth of repairs last year alone.

Since the oil and gas policy was implemented, more than 50 miles of roads were repaved with a three to four inch HLBC base and a wearing course, ten miles received full-depth base reclamation and wearing course. At least five miles of roadway have already been paved this year.

By agreements with the companies, slides have been repaired, sight distances improved, curves widened, pipes replaced and roads widened.

Most repair projects have begun within a couple of days, if not the same day as the damage occurs. Many operators have contractors on "stand-by" contracts.

Many operators are learning that preventative work done before starting the well construction is more economical and provides better relations with local citizens.

As you can see, the Department has received great cooperation from most of the gas operators in the state and I believe that cooperation has been attained by clearly stating the Department's expectations in the Oil and Gas policy.

Thank you again, Senator, for this opportunity. I'm happy to answer any questions you may have.

The CHAIRMAN. Thank you very much, Secretary Mattox.

And now we'll hear from Scott Rotruck, Vice President of Corporate Development, Chesapeake Energy Corporation.

**STATEMENT OF SCOTT ROTRUCK, VICE PRESIDENT,
CORPORATE DEVELOPMENT AND STATE GOVERNMENT
RELATIONS, CHESAPEAKE ENERGY CORPORATION**

Mr. ROTRUCK. Good afternoon, Senator Rockefeller. Thank you for the invitation to speak and thank you very much for bringing the field hearing to West Virginia.

Congresswoman Capito, thank you for being here.

And Congressman McKinley, good to have you here, sir.

I'm Scott Rotruck, a resident of Morgantown, West Virginia, and Vice President of Corporate Development and State Government

Relations for Chesapeake Energy. Chesapeake is the second-largest producer of natural gas, a Top 15 producer of oil and natural gas liquids, and the most active driller of new wells in the U.S. We have 160 drilling rigs operating. Chesapeake has offices in Charleston, Jane Lew, and seven other locations, and we directly employ over 750 West Virginians.

The first priority of Chesapeake Energy is safety, including safety of all personnel on our operations, the safety of the public, and the safety of our natural environment. The benefits of shale gas development, including all infrastructure to access the well pads and take the products to market, are powerful and growing. But safety is always the first priority.

West Virginia's road system was not built to accommodate the large transportation demands of shale gas development. But the good news is the process, while initially inconvenient, as is the case with many economic development projects, will leave behind an enhanced system of roads for the benefit of local residents and the State coffers.

Several years ago, Chesapeake hired a registered professional engineer with over 30 years of experience as a highway engineer manager. He developed a comprehensive approach to our road management in partnership with the department which has benefited local residents, State coffers, and also the efficiency of our operations.

In 2011, we did rehabilitation or reconstruction of 150 miles of road in the region and plan to do 130 miles this year. Our road maintenance system has evolved. We reinforce, rebuild, repair as the situation dictates to keep them safe and passable. We consistently communicate with residents who are using these roads through community advisory panels and other less formal discussions.

We have also built staging areas to optimize truck dispatching to avoid long waits for local traffic while using traffic dispatchers to organize and orchestrate these complex equipment moves. Chesapeake realizes and takes very seriously our responsibility for safety, for communication, and for solution-oriented collaboration.

Thank you all again for having me here, Senator.

[The prepared statement of Mr. Rotruck follows:]

PREPARED STATEMENT OF SCOTT ROTRUCK, VICE PRESIDENT, CORPORATE DEVELOPMENT AND STATE GOVERNMENT RELATIONS, CHESAPEAKE ENERGY CORPORATION

Good afternoon Senator Rockefeller, thank you for the invitation to speak and thanks for bringing this Field Hearing to West Virginia.

I am Scott Rotruck, a resident of Morgantown, West Virginia, and Vice President of Corporate Development and State Government Relations for Chesapeake Energy Corporation. Chesapeake is the second-largest producer of natural gas, a Top 15 producer of oil and natural gas liquids and the most active driller of new wells in the U.S., with around 160 drilling rigs operating. Chesapeake has offices in Charleston and Jane Lew, and seven other West Virginia locations, and directly employs 750 West Virginians.

The first priority of Chesapeake Energy is *Safety*, including the safety of all personnel on our operations, the safety of the public, and the safety of our natural environment. The benefits of shale gas development, including all infrastructure to access the well pads, are powerful and growing.

The Northern Panhandle of West Virginia has a very valuable portion of the Marcellus Shale Play, called the Wet Gas Window, where Chesapeake has seven

rigs drilling wells producing natural gas and several other compounds including ethane, the second most abundant compound found in natural gas, which can be cracked into ethylene, a building block of plastics and a key to value added manufacturing.

Enhanced Infrastructure, including railroads, pipelines, fractionators and compressors are essential for development of the shales and are also huge economic development projects themselves.

West Virginia's road system was not built to accommodate the large transportation demands of shale development, but the good news is the process, while initially intrusive and disruptive, as is the case with many economic development projects, will leave behind an enhanced system of roads for the benefit of local residents and the state coffers.

Chesapeake hired a Registered Professional Engineer with over thirty years of experience as a Highway Engineer and Manager, who developed a comprehensive approach to road management. In the operating area that includes northern West Virginia, we invested \$61 million on roads in 2011, and plan to spend an additional \$93 million in 2012.

Since the first horizontal shale wells drilled in WV in 2007, our road maintenance system has evolved. We reinforce, rebuild, and repair roads, as the situation dictates, to keep them safe and passable. We consistently communicate with residents who are also using those roads, through community advisory panels and other less formal discussions. We work toward collaborative solutions, including accommodating school buses schedules, operating certain trucks only at night and using private security service to ensuring absolute regulatory and policy compliance by Chesapeake personnel and contractors. We have also built staging areas to optimize truck dispatching to avoid long waits for local traffic, while using traffic dispatchers to organize and orchestrate complex equipment movements, again to limit disruption to local traffic.

Chesapeake realizes and takes very seriously, our responsibility for safety, for communication, and for solution-oriented collaboration. Thank you very much for inviting me to speak.

The CHAIRMAN. Thank you very much, Scott Rotruck.

And now we're going to hear from Sheriff John Gruzinskas. And you're from Marshall County.

Mr. GRUZINSKAS. That's correct, sir.

**STATEMENT OF SHERIFF JOHN GRUZINSKAS,
MARSHALL COUNTY, WEST VIRGINIA**

Mr. GRUZINSKAS. And thank you for the invitation to address the Committee. Thank you, Senator Rockefeller, Congressman McKinley, and Congresswoman Capito.

I've most likened the situation with the Marcellus industry entering Marshall County as an invasion. We are an industrial county there. We've seen a lot of the industry come and go. We've seen the pipelines. We've seen coal mine expansions. But I don't think anybody up there was ever prepared for the volume and the tremendous amount of truck traffic that we are going to see and we have seen in Marshall County.

It's something that our roads just are not suited for, and they're not suited for drivers who aren't familiar with them. Most of the subcontractors that are hired by the major drillers are from Texas, Arkansas, Oklahoma, Louisiana. And I can't tell you the amount of complaints that our office fields of our residents being run off the road day and night by trucks traveling to and from well sites.

Just the size of the water trucks, the tri-axle dump trucks are not conducive to our county roads. And I know that all of you are familiar with what I'm speaking about. The roads up there may have a map designation of a two-lane road, but the practical designation is somewhat more realistic than that.

We are incurring property damage, where these trucks cannot negotiate areas so they go through people's yards. They tear out people's fences. And for an agricultural area as well, people who have livestock have the trouble of having to go and take care of that problem as well.

It's just that we have an elderly population. Our elderly people are being run off the road, and they are not maybe as quick on the wheel as I am. And we try and educate our population up there. We try and educate them to the fact—to try and get descriptions of the vehicles, because for the best part of the last year, we have enjoyed a very good relationship with the major drillers, Chesapeake and CN—the Consolidation Coals branch of the gas industry, Caiman Energy. And if we can identify and articulate a problem with a subcontractor, they're very quick to deal with that.

But the problem is our residents, as they're trying to keep their car from going over the hill, are having a tough time trying to identify who is running them off the road. We have instituted some meetings up there that we engage in on a monthly basis with many of the pipeline companies and many of the major gas companies. And we have engaged in very productive talks over the past month and the past year, and these talks have led to increased cooperation. And although we're still having the problems with our residents and the damage to property, we're gaining some ground.

Now, some of the other things that—the ancillary things, some of the hidden things, are just the fact that with the damage done by subcontractors, with my limited manpower, I may have to have a deputy 2 or 3 days talking with a company in Louisiana or Texas or Arkansas, trying to resolve damaged property in Marshall County. And it may take 2 or 3 days for us to finally hit on someone who will say, "Well, yes, we'll take care of the problem."

Another ancillary problem that we have is the damage to our patrol cars. As the Honorable Mr. Mattox has addressed, the roads are falling apart. I've had to increase my maintenance budget because our patrol cars are being torn apart—broken tires, bent wheels, ripped out exhausts. And this is just something that we hope will improve over the coming months and the coming years.

So we welcome the industry here, and we're working with them. But, as well, we want to make sure that they understand our problems in dealing with our residents.

Thank you.

[The prepared statement of Mr. Gruzinskas follows:]

PREPARED STATEMENT OF SHERIFF JOHN GRUZINSKAS,
MARSHALL COUNTY, WEST VIRGINIA

TRAFFIC ISSUES I have most times likened the Marcellus shale discovery and its subsequent development as an invasion. It was almost overnight that the major companies like Chesapeake, Caiman energy, Chief oil and gas, CNG and others began moving their equipment into the county. I was either on the phone with or meeting with representatives of the industry that were telling me how safe they were, and what good neighbors they wanted to be on a daily basis.

Since Marshall County is already an industrial county, we thought we have seen these surges in industry come and go. We were never prepared for the onslaught of heavy trucks that would monopolize our roads, damage our property, and destroy our roads. These trucks travel our roads all hours of the day and night. The drivers are not from here so they do not care what happens as a result of their reckless operation. Our roads are destroyed from these overloaded vehicles. And our state

is a willing participant in this destruction. If there are trucks that are over the legal road weight of 45,000 pounds, they simply apply to Charleston at the Division of Highways permit office, and get a permit to travel with an 80,000 pound load.

There may be up 60 or 70 trucks that are travelling our roads with these over-weight loads going to one site.

The majority of our complaints of traffic crashes are hit and run crashes, and large trucks running off the road. What we have experienced is that most of the companies sub-contracted by the gas drillers are from southern and western states. The drivers are not familiar with our winding narrow roads. This makes for a bad combination for our local oncoming traffic. Many of our residents are run off the road by the large trucks. Although we try and educate our residents to get as much information as possible about the offender, so we can take enforcement action, it is difficult for them to do that as they try to keep from going over the hill.

For the most part the large companies work towards cooperating with the Sheriff's Office, other law enforcement agencies, the Department of Transportation, and the school board. It is the aforementioned sub-contractors that we have problems with. They freely admit that they would much rather run illegally and get caught and pay the fine than have to hire extra men to do the job right, because it's cheaper.

In their defense, some of the large companies realize that their sub-contractors are somewhat less than model drivers. They offer that if we can provide information about an offending driver or company, they will discharge that company from their employ. They have been good to their word. I can say that when I have been able to articulate an offense and the sub-contractor involved, the parent company has discharged them.

I have had success in cooperating with the company liaison representatives. There are several of these companies that deal very quickly with citizen complaints. If I get a complaint in an area of the county that these companies are operating in, the company liaisons will contact the citizens directly to attempt to solve their complaints.

Normally when our residents call us to complain of being run off the road, the only description may be "a large red/blue dump truck". The Sheriff's Office responds to all complaints, but in many cases with the sub-contractors, the suspect vehicle has already fled the scene. In cases of property damage, I can reference a most recent case where a truck damaged property by driving through a resident's yard. A good description was supplied by the victims of the destruction of property. The vehicle was tracked down to a company in North Carolina. The problem was resolved, but took several days and man hours to reach a solution. If the offender had stopped it could have been resolved more quickly.

I have limited manpower. This issue with the traffic problems caused by trucks is just one of the hundreds of complaints answered by Marshall County deputies. Although I would much rather have the deputies devoting their time to victims of felony crimes in the county, they are constantly distracted by the never-ending complaints of truck traffic. I cannot effectively devote manpower to the truck complaint if deputies are working on more serious matters.

On a regular basis I assign off duty deputies to patrol our problem areas. By that I mean areas where we have the most complaints. We instruct our personnel to be visible and take whatever enforcement action is appropriate. As county law enforcement officers, our deputies do not have the authority to stop these trucks for safety inspections, log book inspections or weight law violations. That is the bailiwick of the public Service Commission.

The Public Service Commission also maintains a presence in Marshall County, and cooperates with the Sheriff's Office when they can. I do know that the Public Service Commission writes many citations for violations of the Federal motor carrier regulations.

To distill the truck problem down to one of its basic components, what I see is the disrespectful attitude and disregard for the residents of this county by some of these sub-contractors.

The distrust and animosity still remains between the sub-contractors and the citizens. It is up to Law enforcement to find new ways to deal with the complaints.

One of the best ways we have of dealing with this is regular meetings between the industry, law enforcement, emergency management, school officials, and the Division of Transportation. These meetings continue to be an open and civil communication between state and county government and the gas drilling companies. We have a long way to go, but we make progress however little at a time.

The CHAIRMAN. Thank you, Sheriff, very much.

Now, Ms. Tina Faraca, Vice President of Strategic Development, Spectra Energy.

Welcome.

**STATEMENT OF TINA V. FARACA, VICE PRESIDENT,
STRATEGIC DEVELOPMENT, SPECTRA ENERGY CORPORATION**

Ms. FARACA. Good afternoon, Chairman Rockefeller, Representatives Capito and McKinley. It's an honor to be here with you today to discuss the many opportunities associated with developing our abundant natural gas resources available here domestically.

I am Tina Faraca, Vice President of Strategic Development for Spectra Energy. Spectra Energy is one of the largest natural gas interstate pipeline and storage systems in the U.S. and across 26 states, including West Virginia, where we have reliably operated our Texas Eastern pipeline system since 1947.

At Spectra Energy, we believe natural gas represents a golden opportunity for our nation to reach energy security, economic, and environmental goals. Today, we know that domestic natural gas resources are immense, and given the versatility of natural gas as an energy source for power generation, residential and commercial use, and a feedstock for the industrial sector, as well as transportation fuel, the market for natural gas is also growing.

And as a result, we are investing in new and needed infrastructure across the continent. Since 2007, Spectra Energy has invested about \$1 billion a year in expansion capital—more than 50 projects. And by the end of the decade, we expect that we will have over \$15 billion investment total.

In addition, we are investing approximately \$700 million this year alone on maintenance and integrity work to ensure the safety and reliability of our existing facilities. At Spectra Energy, safety is non-negotiable. It is our license to operate. It is our highest commitment to our communities, our customers, and our employees. Much of our recent projects and expansions in this region have been a result of the rapidly shifting supply picture on behalf of customers such as Chesapeake Energy and CONSOL, which are testifying here today.

As my written testimony discusses in more detail, the level of pipeline and related infrastructure investments pursued in recent years and those that are on the horizon are not limited to Spectra Energy. Over the past decade, the interstate pipeline industry has constructed and placed into service 14,600 miles of new interstate pipeline, adding over 76 billion cubic feet per day of new gas capacity. What's more, throughout the economic downturn, our industry investment in pipeline infrastructure was roughly \$8 billion a year.

Now, looking forward, it's estimated that approximately \$250 billion in midstream investments will be required to accommodate the development of natural gas, natural gas liquid resources, and oil resources through 2015—I'm sorry—2035. The economic impacts from construction, operation, and maintenance will help support an annual average of over 125,000 jobs and \$141 billion in labor income over this period.

These cumulative midstream investments will account for nearly \$425 billion in total economic output and generate over \$16 billion in state and local taxes and over \$41 billion in Federal taxes. And

remember, these numbers reflect only the direct impacts from the midstream investment. We know the societal benefits from investment throughout the entire value chain, including the cost savings to energy consumers, are enormous.

But for this opportunity to be realized, policies must be encouraged—they must encourage continued investment in natural gas infrastructure. Companies that are investing significantly in our energy future need certainty and predictability in terms of both process and timeline.

Thank you for holding this hearing, for inviting me to participate on behalf of Spectra Energy. I look forward to answering any questions the Committee may have.

[The prepared statement of Ms. Faraca follows:]

PREPARED STATEMENT OF TINA V. FARACA, VICE PRESIDENT,
STRATEGIC DEVELOPMENT, SPECTRA ENERGY CORPORATION

Chairman Rockefeller, Ranking Member Hutchison, and distinguished members of the Committee, I am honored to be here today. My name is Tina Faraca and I am Vice President of Strategic Development for Spectra Energy Corp (Spectra Energy). I am responsible for development of strategic plans for the corporation and its business units.

I previously served as president of the Maritimes & Northeast Pipeline (Maritimes) where I was responsible for Maritimes' natural gas pipeline assets in Canada and the United States.

Prior to my role at Maritimes, I served as general manager of business development for Spectra Energy Transmission, where I was responsible for overseeing the development and marketing of all new natural gas pipeline infrastructure and expansion activities on the company's Texas Eastern Transmission, LP (Texas Eastern) and Algonquin Gas Transmission Company, LLC natural gas pipeline systems. I have over 20 years of experience in the energy industry, including management positions in engineering, system planning, strategy development, marketing and business development.

Spectra Energy is one of North America's premier natural gas infrastructure companies serving three key links in the natural gas value chain: gathering and processing, transmission and storage, and distribution. Based in Houston, Texas, the company operates in 26 states and seven Canadian provinces approximately 19,300 miles of transmission pipeline, more than 300 billion cubic feet of storage, as well as natural gas gathering and processing, natural gas liquids operations and a natural gas utility which serves over 1.3 million retail customers. The company also has a 50 percent ownership in DCP Midstream, one of the largest natural gas gatherers and processors in the United States. Spectra Energy is a member of both the Dow Jones Sustainability World Index and the U.S. S&P 500 Carbon Disclosure Project's Leadership Index.

For more than a century, Spectra Energy and its predecessor companies have developed critically important pipelines and related infrastructure connecting natural gas supply sources to markets in the United States and Canada. Today, we know that North America's natural gas supplies are immense, with a large, economically accessible natural gas resource base that includes significant sources of unconventional gas from shale, tight sands and coal-bed methane. And given the versatility of natural gas as an energy source for power generation, residential and commercial applications, as a feedstock for the industrial sector and as a transportation fuel, the market for natural gas is also growing.

Spectra Energy's assets remain well-situated in proximity to both supply-rich producing areas and premium markets. As a result, we are investing in new and needed infrastructure across the continent. Since 2007, Spectra Energy has invested about \$1 billion a year in capital expansions, and by the end of the decade we expect that investment to total more than \$15 billion. In addition, we will invest approximately \$700 million this year alone on maintenance and integrity work to ensure the safety and reliability of our existing facilities. For Spectra Energy, safety is a non-negotiable; it's our license to operate, and our highest commitment to our communities, our customers and our employees.

Our Texas Eastern system which overlies the Marcellus and Utica shale formations in Ohio, northern West Virginia and Pennsylvania has been reliably operating

in this region since 1947. We also operate a natural gas storage facility just across the West Virginia state line in Garrett County, Maryland which is capable of storing up to 64 billion cubic feet of natural gas.

Much of our recent pipeline and storage expansion in the region has been a result of the rapidly shifting supply picture, and pursued on behalf of customers such as Chesapeake Energy and CONSOL Energy also testifying here today. The Marcellus shale formation has seen tremendous growth in a very short time span—and estimates point to continued robust development and production increases. Currently the Marcellus is producing about five billion cubic feet per day (with roughly 20 percent transported on our system) and that's expected to double over the next 10 years. The Utica formation, while still in its infancy from a development standpoint, promises to be another major supply contributor.

Economic Benefits

Given a robust supply outlook and market growth, necessary investments in infrastructure are anticipated to be significant over the next two decades. A 2011 INGAA Foundation report *North American Midstream Infrastructure Through 2035—A Secure Energy Future* (the *2035 Midstream Report*)¹ estimated that approximately \$250 billion in midstream investments will be required to accommodate the development of natural gas, oil and natural gas liquid (NGL) resources from 2012 through 2035. The economic impacts through 2035 associated with construction, operation and maintenance, will help support an annual average of over 125,000 jobs and \$141 billion in labor income. The cumulative 2012 through 2035 midstream investments in the U.S. are estimated to account for nearly \$425 billion in total economic output and generate over \$16 billion in state and local taxes and approximately \$40 billion in Federal taxes.

Other U.S. industries are also benefiting from access to robust natural gas supplies. As Mr. Kean may highlight in his testimony, American manufacturers enjoy the lowest natural gas costs in the world today, a major competitive advantage. A recently completed study from the American Chemistry Council² estimated that a modest increase in natural gas supply from shale deposits would generate more than 400,000 new jobs in the United States, more than \$132 billion in U.S. economic output and \$4.4 billion in new annual tax revenues. The ACC notes that “thanks to affordable and abundant supplies of natural gas from shale, chemistry is driving an American manufacturing renaissance that will lead to a stronger economy, greater international competitiveness and new jobs in communities across the Nation.”

As you know, the beneficial impact of natural gas is beginning to be realized in West Virginia. Importantly, West Virginia enjoys an existing and expandable transportation network. In addition to Spectra Energy's Texas Eastern system, there are four other major interstate natural gas pipelines located in the state including Columbia Gas Transmission Company, Tennessee Gas Pipeline, Equitrans, L.P. and Dominion Transmission. These interstate pipelines provide producers with direct access to premium markets in the mid Atlantic and northeastern United States. In addition to providing an immediate revenue opportunity for producers, this existing infrastructure also provides the “backbone” for expansion of existing infrastructure or the development of new infrastructure.

One recent example is Hope Gas Inc. which is a West Virginia corporation, and a subsidiary of Dominion Resources. Hope is in the business of purchasing and distributing natural gas in West Virginia, serving approximately 112,000 residential, commercial, wholesale, and industrial customers in 32 of West Virginia's 55 counties by way of approximately 3,100 miles of in-state transmission and distribution facilities. Hope also interconnects with three interstate natural gas pipelines—Dominion Transmission, Inc. (DTI), Columbia Gas Transmission, LLC (Columbia) and Equitrans, L.P.

Hope applied to the Federal Energy Regulatory Commission (FERC) for authorization to transport gas in interstate commerce to these interconnecting pipelines stating that West Virginia is experiencing a significant increase in natural gas exploration and production activities associated with the expansion of shale gas production and that the abundance of shale gas anticipated in the coming years exceeds the amount needed for Hope's LDC system, and demand for the State of West Virginia in general. As such, several producers located proximate to Hope's system expressed interest in receiving transportation from Hope for delivery to one or more

¹*North American Midstream Infrastructure Through 2035—A Secure Energy Future*, ICF International, June 28, 2011.

²*Shale Gas and New Petrochemicals Investment: Benefits for the Economy, Jobs and U.S. Manufacturing*.

of the interstate pipelines Hope interconnects with, in order to access interstate markets. FERC granted Hope's authorization in late March.

This action will allow producers direct access to natural gas markets and provides Hope with greater system utilization while maintaining West Virginia's markets relatively easy access to these natural gas supplies as the economy and natural gas utilization continues to grow. Currently West Virginia's industrial sector accounts for approximately 30 percent of natural gas consumption in the state. Access to these local supplies will likely help attract further economic development to the state.

Spectra Energy's 670 mile Maritimes system is another example of the economic opportunities afforded by ready access to pipeline infrastructure. The Maritimes pipeline was placed in service approximately 10 years ago, introducing natural gas to parts of Maine and other areas of the northeast that previously did not have access to this clean burning, reliable and cost competitive energy source. In 2009, Maritimes placed its Phase IV Expansion in service at a cost of \$300 million which effectively doubled the capacity of the system and now transports natural gas from offshore and onshore supplies as well as liquefied natural gas supplies. Our investment in Maritimes provides over \$7 million annually in taxes to Maine alone and has facilitated subsequent infrastructure development including the creation of Bangor Gas Company, Maine Natural Gas, Casco Bay Energy Company, LLC, the Bucksport Energy Plant and the Westbrook Energy Center that now serve the energy needs of thousands of homes and businesses throughout Maine. In addition to this growth in Maine, deliveries in New Hampshire have grown from virtually zero to approximately 12 percent of total deliveries over the past decade.

Regulatory Stability and Predictability

The significant capital requirements for natural gas infrastructure require long-term financing commitments which are anchored by long-term service agreements with pipeline customers. As such, interstate pipelines are significantly affected by public and regulatory policy affecting the availability and cost of capital. Energy, environmental and tax policies can all affect a pipeline's ability to raise capital for expansions to meet the markets requirements for access to natural gas supplies.

Companies that are investing significantly in our energy future need certainty—in terms of process and timeline. Regulatory stability is critical to accessing capital, developing projects and maintaining and operating our systems reliably and safely. The FERC has been granted exclusive jurisdiction by Congress under the Natural Gas Act for siting interstate natural gas pipelines and the rates they charge. Interstate pipeline rates are based on a pipeline's cost-of-service plus a reasonable rate of return. These projects can take several years to develop and permit.

The interstate pipeline industry has a proven track record of building infrastructure and providing services in response to increased demand from the market. Over the decades, interstate pipelines consistently have constructed infrastructure to deliver natural gas safely and reliably from supply and production areas to market. From January 2000 through February 2011, the interstate pipeline industry constructed and placed into service 14,600 miles of interstate pipeline, adding 76.4 Bcf/d of capacity. The capital investment in these projects totaled approximately \$46 billion. Moreover, industry investments in pipeline infrastructure equaled or exceeded \$8 billion per year in three of the past four years.³

During the development and permitting process, numerous activities take place including execution of shipper agreements with customers; stakeholder outreach with federal, state, local officials, landowners and other affected parties; environmental analysis and reviews; facilities design and placement of orders for long lead time equipment and negotiation of construction contracts and services. Efficient and effective completion of these activities is highly dependent on a consistent and certain, regulatory environment.

The Department of Transportation's Pipeline and Hazardous Materials Safety Administration has jurisdiction for pipeline safety. The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 developed by this Committee is an important piece of legislation that provided necessary regulatory certainty for the public and industry regarding ongoing safety plans and maintenance programs. This regulatory certainty facilitates a clear regulatory environment during which pipeline operators can make significant decisions on capital, labor and third party resource intensive operations and maintenance activities.

³See *North American Natural Gas Midstream Infrastructure Through 2035: A Secure Energy Future, Executive Summary*, prepared for The INGAA Foundation, Inc. by ICF International, June 28, 2011.

The President's Council on Jobs and Competitiveness' recent 2011 Year-End Report⁴ recognized that optimizing the use of America's natural resources through energy and transportation efficiency is a national priority. The report further noted that promoting energy innovation and investment "can fuel the prosperity Americans seek for the coming generation and beyond," but "[t]he permitting process must be streamlined."⁵

The natural gas industry is forecasted to add over 43 Bcf/d of new natural gas transmission capacity over the next 25 years to meet demand⁶ with approximately 1,400 miles per year of new natural gas mainline, 600 miles per year of new laterals, 24 Bcf per year of new working gas in storage, and 197,000 horsepower per year for pipeline compression.

The siting, construction, and operation of these natural gas assets require Federal permits, grants of rights-of-way, and approvals from various agencies, including the FERC. These Federal approvals require compliance with the National Environmental Policy Act (NEPA). Spectra Energy is committed to minimizing adverse impacts to the environment that may occur during development of this critical infrastructure and agree that the permitting for these projects should be completed in an environmentally responsible and timely manner while meeting the energy needs of the Nation.

Before discussing the merits of this point, it is useful to summarize the NEPA process as it applies to the interstate pipeline industry.

In order to construct, acquire, alter, abandon, or operate an interstate natural gas transportation facility, a company must obtain a certificate of public convenience and necessity from the FERC, pursuant to section 7(c) of the Natural Gas Act (NGA).⁷ The Energy Policy Act of 2005 (EPA 2005) designated FERC as the lead agency, for purposes of NEPA compliance, for such facilities.⁸ In addition to the CEQ regulations, FERC has issued its own regulations that govern its NEPA process.⁹

Specifically, FERC has promulgated regulations, including many activities conducted by interstate natural gas companies pursuant to authority granted by FERC under blanket certificates and the installation of certain facilities located completely within existing rights-of-way.¹⁰ For larger-scale section 7(c) infrastructure construction and for LNG terminal construction under section 3(e), further NEPA review is required, often culminating in an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). Under FERC's regulations, if a project type is not categorically excluded from an EIS-type of in-depth environmental review, a project proponent is required to submit 13 resource reports¹¹ with its application that provide environmental data and describe the anticipated impact of the proposed project, in order to support preparation of the NEPA analysis.¹² FERC also requires the project proponent to consult with appropriate federal, regional, state, and local agencies during the planning stages of the proposed action to ensure that all potential environmental impacts are identified.¹³ A project proponent can also choose, or in instances involving LNG facilities, is required, to use FERC's pre-filing process, which serves to begin the NEPA analysis by involving relevant agencies and stakeholders and by allowing FERC staff to determine the scope of the NEPA review and to provide feedback on the resource reports, all before the project proponent files a formal application. The pre-filing process, when used, can help facilitate agency coordination and identification of cooperating agencies for purposes of NEPA review.

EPA 2005 designated FERC as the lead agency for coordinating all applicable Federal authorizations for interstate natural gas infrastructure development.¹⁴ This provision is vital due to the significant coordination necessary between FERC and other agencies, including, but not limited to, the Army Corps of Engineers, the Bu-

⁴*Road Map to Renewal: Invest in Our Future, Build on Our Strengths, Play To Win*, President's Council on Jobs and Competitiveness, 2011 Year-End Report ("President's Jobs Council Year-End Report").

⁵*Id.* at p. 28.

⁶See *North American Natural Gas Midstream Infrastructure Through 2035: A Secure Energy Future*, Executive Summary, prepared for The INGAA Foundation, Inc., by ICF International, June 28, 2011.

⁷ 15 U.S.C. § 717f(c).

⁸*Id.* § 717n(b).

⁹ 18 C.F.R. Part 380.

¹⁰ 18 C.F.R. § 380.4.

¹¹Note that because Resource Report 13 applies only to LNG projects, the practical result is that natural gas interstate pipeline infrastructure projects only file 12 resource reports.

¹² 18 C.F.R. § 380.12.

¹³ 18 C.F.R. § 380.3(b)(3). See also 18 C.F.R. § 157.21.

¹⁴ 15 U.S.C. § 717n(b).

reau of Land Management, the U.S. Fish and Wildlife Service (USFWS), the U.S. Forest Service, the Bureau of Reclamation, the National Park Service, the Advisory Council on Historic Preservation, the Bureau of Indian Affairs, State Historic Preservation Officers, and numerous state departments of environmental quality/natural resources. The involvement of different agencies in the NEPA process, and sometimes numerous offices within the same agency, is challenging and frequently results in delay when those agencies do not act in concert. Spectra Energy believes that the FERC has done a good job facilitating agency coordination, within the limits of its authority.

However, as implemented today, the NEPA review process can become mired in unnecessary delay that can hinder timely infrastructure development. This issue has been recognized by many including the last two administrations which, through Executive Orders, have attempted to bring greater efficiency to the permitting process for energy projects. Most recently, on March 22, 2012, the President issued an executive order with the goal of significantly reducing the aggregate time required to make decisions in the permitting and review of infrastructure projects by the Federal Government, while improving environmental and community outcomes. Similarly, a number of Federal agencies have entered into memorandums of understanding (MOU) to coordinate cooperative agency procedures. For example, FERC and the U.S. Army Corps of Engineers entered into an MOU to “streamline regulatory processes through early coordination to identify project purposes, needs and alternatives that each agency can use in carrying out its respective regulatory responsibilities.”¹⁵

The efficient development of necessary infrastructure projects requires established and predictable timelines for conducting NEPA reviews. This requires an environmental review process that avoids delay and duplication, sets clear timelines, and promotes concurrent, not sequential, actions by cooperating and coordinating agencies.

Conclusion

Mr. Chairman, in conclusion, natural gas holds tremendous, sustainable economic and energy security promise for this region, our Nation and all of North America. If society is to realize the long and lasting benefits from ample domestic natural gas resources, pipeline operators must be committed to delivering needed energy and infrastructure safely, reliably and cost-effectively. Also true, for the natural gas opportunity to endure, it must be built upon a foundation of sound public policy and a predictable regulatory structure. Thank you for holding this hearing and for inviting me to participate on behalf of Spectra Energy. I’ll look forward to answering any questions the Committee may have.

The CHAIRMAN. Thank you very much, Ms. Faraca. You tended to talk about national investments, and I would hope that the rest of you would try to bring yourself into the state we all are working for, which is called West Virginia. Investments on a national scale don’t mean a lot to me. Investments and how they’re done and what they’re going for in West Virginia does mean a lot to me. That’s not a criticism, because it was a good piece of testimony.

Corky DeMarco? I ignore your first name.

STATEMENT OF NICHOLAS “CORKY” DEMARCO, EXECUTIVE DIRECTOR, WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION

Mr. DEMARCO. Thank you, Senator, and thank you, Congresswoman Capito and Congressman McKinley.

I represent the West Virginia Oil and Natural Gas Association, which was founded in 1915 and is the oldest trade association operating in West Virginia. Shortly after George Washington surveyed the first gas well in now West Virginia in 1771, our industry has been producing this commercial resource since the early 1800s as the primary resource of its time.

¹⁵See FERC, “U.S. Army Corps of Engineers sign MOU on agency roles in authorizing gas projects,” News Release: July 13, 2005.

As the shales are developed in the Appalachian Basin, there's a need to expand infrastructure and reinvent ourselves again. States such as West Virginia have been producing this natural gas for over 150 years, and the pipelines that we currently have are near capacity. With the expansion of drilling activity, the need has increased for the development of midstream, not only to move gas to the interstate pipeline systems, such as Spectra, but also to move gas to processing facilities like those being developed along the Ohio River.

These processing facilities strip the hydrocarbons from the natural gas stream, and these market-based products—ethane, butane, iso-butane, and propane—support manufacturing. The natural gas is rich in its hydrocarbons in the Appalachian Basin, and it's going to be instrumental in bringing back the chemical industry and the chemical manufacturing jobs to this country. Our ability to meet these demands in the future will be based on how well we plan and develop the infrastructure today.

As most of you are familiar, the challenges of building a pipeline in West Virginia and in this basin are difficult, expensive, and cutting through rock and traversing the hills of West Virginia and Appalachia must not deter our efforts to establish new and improved pipeline systems. The review of our current pipelines and the planning and the mapping of new routes goes on continually. We have six, if not seven, infrastructure gathering lines under construction right now.

The Senate Committee on Commerce, Science, and Transportation can assist in assuring this infrastructure is completed in a reasonable time-frame and support these downstream developments. Additionally, your committee can provide oversight and guidance to two important agencies as we develop these pipelines, and that's the Corps of Engineers and the Environmental Protection Agency, as we need their cooperation in developing this infrastructure.

It's an exciting and important time for us to work together to reinvent manufacturing, and the oil and gas industry is standing willing and able to do this. Thank you all very much.

[The prepared statement of Mr. DeMarco follows:]

PREPARED STATEMENT OF NICHOLAS "CORKY" DEMARCO, EXECUTIVE DIRECTOR,
WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION

I represent the West Virginia Oil and Natural Gas Association which was founded in 1915. WVONGA is the oldest trade association in West Virginia.

As the shales are developed in the Appalachian Basin, there is a need to expand the current infrastructure. States such as West Virginia have been producing natural gas for over 100 years and have pipelines that are currently near capacity. With the expansion of drilling activity the need has increased to develop mid-stream not only to move gas to the interstate system but also to move gas to the processing facilities like those being developed along the Ohio River. The processing facilities strip the hydrocarbons from the natural gas stream and these market based products Ethane, Butane, Iso-Butane and Propane support manufacturing. Natural gas with its rich hydrocarbon base is instrumental to bringing back chemical manufacturing jobs back to this country.

Our ability to meet demands in the future will be based on how well we plan and develop this infrastructure today. As most of you are familiar, the challenges of building pipelines in West Virginia and this Basin are difficult and expensive, cutting through rock and traversing the hills of Appalachia must not deter our efforts to establish a new and improved pipeline systems.

The Senate Committee on Commerce, Science and Transportation can assist in assuring that this infrastructure is completed in a reasonable time-frame to support downstream developments. Additionally, your committee can provide oversight and guidance to the Army Corp of Engineers and the Environmental Protection Agency as we develop needed infrastructure. It is an exciting and important time for us to work together to re-invent manufacturing in this country.

The CHAIRMAN. Thank you, Corky. So all we have to do is to take the Corps of Engineers and the EPA and tell them what to do?

Mr. DEMARCO. That would help.

[Laughter.]

The CHAIRMAN. Mr. Albert? Randy Albert, Chief Operating Officer, Gas Operations, CONSOL Energy.

Welcome, sir.

**STATEMENT OF RANDALL M. ALBERT, CHIEF OPERATING
OFFICER—GAS DIVISION, CONSOL ENERGY, INC.**

Mr. ALBERT. Thank you, Senator Rockefeller, Congresswoman Capito, and Congressman McKinley. I want to thank you for hosting this very important event today.

Public policy matters, and we must make sound decisions with regard to every aspect of this shale revolution, from production to delivering our product to market, in order to truly provide energy and economic security for our country.

I am Randy Albert, Chief Operating Officer of the Gas Division of CONSOL Energy. CONSOL, as you know, is the largest producer high-Btu bituminous coal in the United States. We've been named one of America's most admired companies by Fortune magazine. What you may not know is that with 3.7 tcf of reserves of natural gas, we are also one of the largest gas producers in the Appalachian Basin. We currently employ 9,000 people, with over 4,300 of those right here in West Virginia.

We are the only company that operates across all of the different horizons beneath our feet, from the surface infrastructure and processing facilities to the coal seams and the deeper horizons of the Marcellus and Utica Shales. It is a unique perspective and a unique advantage to us and the State of West Virginia.

West Virginia once again finds itself at the epicenter of the energy debate in America. Through the many challenges we face from external forces, we also find tremendous opportunity right at our doorstep. The shale gas plays in our region and across the country have literally been game changing.

The technological advances in horizontal drilling and fracturing have unleashed this vast new economic opportunity. And with over 500 tcf of gas in the Marcellus Shale alone, we believe that this one shale could represent a 25-year natural gas supply to the United States. By 2020, this revolution is expected to create over 200,000 additional jobs in the region, over \$18 billion in value added, and over \$1.8 billion in state and Federal tax revenues.

How do we get to these numbers? Each well requires 415 workers from 150 different kinds of companies to release and harness the fuel. Approximately \$5 million is invested in the development of each Marcellus Shale well. Each mile of Marcellus pipeline represents a nearly \$1 million investment into the State economy. And

over the next 20 years, the industry will need to invest \$50 billion to \$100 billion in midstream infrastructure alone.

With great opportunity comes even greater responsibility. As I mentioned at the outset of my remarks, public policy does matter. And regulatory certainty creates an atmosphere where companies can and will invest and create these jobs with good economic and environmental return. Last December, Governor Tomblin and the State legislature worked together to pass a comprehensive Marcellus Shale framework doing just that here in West Virginia, and it's something that will pay dividends in the state for years to come.

CONSOL Energy's commitment to providing family sustaining jobs in a safe, compliant, and environmentally friendly manner is as unwavering today as it ever was. While our region has seen the benefits of the surge of natural gas production, we will only realize the full benefit of this critical domestic resource if we are able to effectively move this product and open up new markets for its usage. From the transportation sector to the manufacturing sector, we must closely align our policies to maximize the benefits of this shale play.

Last year, the U.S. produced an average of 63 billion cubic feet of natural gas per day, a 24 percent increase since 2006. But over that period, consumption has grown half as fast. The best hope for economic renewal right here in the United States and the rest of the world is growth. We need a growth agenda predicated on creating an environment that allows the private sector to grow, create jobs, to lift incomes, to generate more tax revenue, and to regain our optimism about the future.

I'm here today to tell you the energy industry can help do all that. At this critical moment for our economy, we can get everything else right, but still go nowhere unless we have an affordable, reliable supply of the energy needed to power the American economic engine. Today, we stand ready to be the industry that helps make recovery possible, a strong, lasting global recovery led by red, white, and blue energy and red, white, and blue manufacturing. If we fail to get this right, the implications for our economy and, by extension, our foreign policy could be staggering in the years ahead.

Thank you for the opportunity, and I look forward to answering your questions.

[The prepared statement of Mr. Albert follows:]

PREPARED STATEMENT OF RANDALL M. ALBERT, CHIEF OPERATING OFFICER—
GAS DIVISION, CONSOL ENERGY, INC.

Thank you, Senator Rockefeller, for convening this very important hearing regarding shale gas development. Your leadership on this issue is essential as our Nation and our state ponder this once-in-a-generation opportunity. Public policy matters—and we must make sound decisions with regard to every aspect of the shale revolution, from production to delivering product to market, in order to truly provide energy and economic security for our country.

I am Randy Albert, Chief Operating Officer—Gas Division for CONSOL Energy. CONSOL is the largest producer of high-Btu bituminous coal in the United States. Named one of America's most admired companies by Fortune magazine, we have evolved from a single-fuel mining company into a multi-energy producer of both high-Btu coal and natural gas—with 3.7 tcf (trillion cubic feet) of natural gas reserves we are also among the largest gas producers in the Appalachian basin.

CONSOL currently employs over 9000 people with 4,303 employees here in West Virginia.

We are the only company that operates across all of the different horizons beneath our feet—from surface infrastructure and processing facilities, to the coal seams and deeper into the Marcellus and Utica Shales—it is a unique perspective and unique advantage to CONSOL Energy and the state of West Virginia.

West Virginia, once again, finds itself at the epicenter of the energy debate in America. Through the many challenges we face from external forces, we also find tremendous opportunity right at our doorstep. The shale gas plays in our region and across the country have literally been “game changing”. Technological advances in horizontal drilling and fracturing techniques have unleashed this vast, new economic opportunity. The Marcellus may be the second largest gas field in the world. Estimates show that there could be as much as 500 tcf underlying the Marcellus Shale. American’s use roughly 20–25 tcf annually—hence, the Marcellus Shale alone could represent a 25-year natural gas supply.

By 2020, the natural gas boom is expected to create over 200,000 additional jobs in the region, over \$18 billion in value added and over \$1.8 billion in state and local tax revenue.

How do we get to those numbers? Each well requires 415 workers from 150 different kinds of companies to release and harness the fuel. Approximately \$5 million is invested in the development of each Marcellus Shale well.

Each mile of Marcellus pipeline represents a nearly \$1 million investment into the state economy. Over the next 20 years, the industry will have to invest \$50 to \$100 billion in midstream infrastructure.

With great opportunity comes even greater responsibility. As I mentioned at the outset of my remarks, public policy matters and regulatory certainty creates an atmosphere where companies can and will invest and create jobs, with good economic and environmental return. Last December, Governor Tomblin and the legislature worked together to pass a comprehensive Marcellus Shale framework doing just that here in West Virginia—something that will pay dividends for the state for many years to come. CONSOL Energy’s commitment to providing family-sustaining jobs, in a safe, compliant and environmentally-friendly manner, is as unwavering today as it ever was.

While our region has seen the benefits of the surge of natural gas production in recent years, we will only realize the full benefits of this critical domestic resource if we are able to effectively move this product and open up new markets for its usage, from the transportation sector to the manufacturing sector, we must closely align our policies to maximize the benefits of these shale plays. Last year, the U.S. produced an average of 63 bcf (billion cubic feet) of natural gas per day, a 24 percent increase from 2006—but over that period consumption has grown half as fast.

The best hope for economic renewal, here in the United States and the rest of the world, is growth. We need a growth agenda predicated on creating an environment that allows the private sector to grow, to create jobs, to lift incomes, to generate more tax revenues and to regain our optimism about the future.

I’m here today to tell you the energy industry can help us do just that. At this critical moment for our economy, we can get everything else right, but still go nowhere unless we have affordable, reliable supplies of the energy needed to power the American economic engine. Today, we stand ready to be the industry that helps make recovery possible—a strong, lasting, global recovery, led by red, white and blue energy and red, white and blue manufacturing.

If we fail to get this right, the implications for our economy and, by extension, our foreign policy could be staggering in the years ahead.

Thank you for this opportunity and I look forward to answering your questions.

The CHAIRMAN. Thank you very much, sir.

Mr. Owen Kean, Senior Director of Energy Policy, American Chemistry Council.

**STATEMENT OF OWEN A. KEAN, SENIOR DIRECTOR,
AMERICAN CHEMISTRY COUNCIL**

Mr. KEAN. Thank you, Mr. Chairman, Ms. Capito, Mr. McKinley. I’d like to echo some of the things that have been said before. We are, indeed, experiencing—

The CHAIRMAN. Can you pull that just a bit closer?

Mr. KEAN. We are, indeed, experiencing a major transformation in the U.S. chemical industry, thanks to shale gas mostly. A few years ago, the U.S. was among the high-cost producers of chemical products in the world. Today, we're close to the low-cost producer, and shale gas and the natural gas that was associated with shale gas is the major reason why.

In the U.S., most of the petrochemical industry is founded on natural gas liquid feedstocks, primarily ethane. In the rest of the world, Europe and Asia, particularly, petrochemical capacity is based on naphtha. Due to the large price spread between natural gas and petroleum, the cost of producing ethylene and ethylene derivatives in the United States is less than half of what it is in Europe and northeast Asia.

As a consequence, demand is soaring. Exports of chemical—basic chemicals in the United States went up—to the rest of the world went up 15 percent last year to \$95 billion. Basic chemicals enjoys a \$34 billion trade surplus, and as a result of this robust demand, we expect to see a 25 percent expansion in U.S. petrochemical capacity in the years to come.

We think West Virginia is well positioned to capture some of that new capacity. The feedstock abundance, particularly for ethane, is staggering, and proximity to our major domestic customers is very attractive. So with the right investments, as been mentioned here, and infrastructure to enable the ethane to get to the markets, we think that this is a good place to invest in some of that new petrochemical capacity that is going to be built in the next few years.

Thank you.

[The prepared statement of Mr. Kean follows:]

PREPARED STATEMENT OF OWEN A. KEAN, SENIOR DIRECTOR,
AMERICAN CHEMISTRY COUNCIL

Mr. Chairman, on behalf of the American Chemistry Council, thank you for the opportunity to address infrastructure issues related to shale gas development.

The American Chemistry Council (ACC) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is a \$720 billion enterprise and a key element of the Nation's economy. It is one of the Nation's largest exporters, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies are among the largest investors in research and development. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the Nation's critical infrastructure.

The chemistry industry is the foundation of U.S. manufacturing and the engine of our National economy. Chemistry creates the basic building blocks for countless products that Americans rely on every day, from the packaging that keeps our food fresher longer to building products that make our homes more energy efficient to materials such as high-tech composites that make our cars, planes, and electronics lighter, stronger and more fuel efficient. In fact, 96 percent of all manufactured goods made in the U.S.A. rely on chemistry.

In chemical manufacturing it all begins with natural gas. U.S. chemical manufacturers use ethane, a liquid found in natural gas, as their primary raw material, or "feedstock." Cell phones, computers, tires and carpeting all use chemistry, and all are made with ethane. The shale gas found in the western Pennsylvania and West Virginia portions of the Marcellus shale contain some of the most ethane-rich shale gas deposits found anywhere in the country. That large supply of ethane is attracting strong interest from ACC member companies.

Shale gas is a game changer for the chemistry industry. It holds the promise of a renaissance of chemical manufacturing in the United States and will dramatically improve our competitiveness globally. With today's more abundant and stable natural gas supplies, U.S. manufacturers have access to lower-cost ethane. We have a big advantage over foreign competitors who use a different process based on a raw material from crude oil, called naphtha. With the global oil prices hovering around \$100 a barrel and U.S. natural gas under \$2 per million BTUs, America's chemistry industry is in a strong competitive position for the first time in years.

The news is full of announcements of U.S. investments, new ethane cracking plants, production expansions and restarts, increased exports of American goods and the positive impacts on many industries that rely on chemistry and plastics—including auto manufacturing, construction, agriculture, health care, and technology. Recently, Shell Chemical announced that it is taking the next step in considering a new world-scale ethane cracker—the first in the U.S. in more than a decade. It's yet another sign of expansion in the domestic chemistry industry through the promise of shale gas.

Shale gas could create hundreds of thousands of manufacturing jobs in areas that have been hardest hit by the recession. In fact, ACC projects that a 25 percent boost in ethane supplies could generate 400,000 U.S. jobs, \$132 billion in U.S. economic output and \$4.4 billion in local, state and Federal tax revenue every year. These include direct chemical industry jobs and thousands more in our supplier industries and the sectors that support all those jobs.

In West Virginia, a \$3.2 billion investment in an ethylene production complex will generate \$4.8 billion in additional chemical industry output and would create more than 12,000 jobs in the chemical industry and its supply chain.

We were pleased to see that in his State of the Union Address, President Obama highlighted natural gas from shale as key to our energy and economic future and offered assurance that his administration "will take every possible action to safely develop this energy." He included natural gas as part of his "all-of-the-above" energy strategy.

With shale gas development poised to play an important and growing role in the country's energy strategy, the next question is: What are the best ways to ensure that America develops these resources, and does so in a responsible way? Regulations and policies around natural gas production and infrastructure development will ultimately determine whether shale gas becomes the "game changer" everyone hopes for, generating economic growth and new jobs and revitalizing U.S. manufacturing.

Robust regulatory activity is already underway at the Federal and state levels. Nine separate Federal agencies are considering policies or regulations related to hydraulic fracturing. The U.S. EPA alone is considering three major regulatory proposals related to fracturing operations. The Federal Bureau of Land Management has proposed a rule that mandates, among other things, 30-day advance notice and approval for specific fracturing fluids to be used at wells. Multiple bills in Congress would require a larger role for the Federal government in regulating shale gas development. Numerous states have already updated their regulations, or are in the process of doing so.

For chemical manufacturing, we believe the U.S. needs to capitalize on shale gas as a significant domestic energy source while ensuring that we have appropriate regulatory policies to protect our water supplies and our environment.

We support state-level oversight of hydraulic fracturing, and we are committed to transparency regarding the disclosure of the chemical ingredients of hydraulic fracturing solutions, subject to the protection of proprietary information. We oppose outright bans on shale gas production or the hydraulic fracturing process.

Many states are already paving the way in developing regulations. Some states have implemented a mandatory chemical disclosure system that works—disclosing relevant information while appropriately protecting confidential business information. Texas, in particular, has a law that strikes the right balance and could serve as a guide for other states.

The bottom line for us is that the full potential from shale gas will only be realized with sound state regulatory policies that allow for aggressive production in an environmentally responsible manner.

We also need to harness the value of ethane as a feedstock that leads to thousands of products used in commerce on a daily basis. That means investing in infrastructure to separate ethane and other liquids from the gas supply, ship it to markets, and develop adequate capacity to store it before use. Today, the existing infrastructure and pipeline capacity is not adequate to move ethane to market. As a result, much of the ethane-rich shale gas in the Marcellus is shut in. Fortunately,

businesses are moving quickly to bring ethane infrastructure to the Marcellus and we expect to see ethane moving to market by the end of next year.

We also expect chemical companies looking to invest in new petrochemical capacity to continue taking a hard look at West Virginia as the site for a future world-scale petrochemical complex. West Virginia hosts an abundant supply of fuel and feedstock, it has excellent road, rail and river transportation networks, a skilled workforce, and is within 500 miles of the primary U.S. markets for petrochemicals and plastics. The state's rail networks also make it an attractive platform from which to ship plastic pellets and sheet to Atlantic ports for shipment to Europe and elsewhere. We believe West Virginia makes an excellent fit as the potential home to at least one of the petrochemical complexes that will be built in the U.S. in the coming years.

In closing, we agree with the President that "the United States has a huge opportunity at this moment to bring manufacturing back." Delivering on the promise of shale gas means that the regulatory and financial environment to fully develop the resource—including the development of the necessary infrastructure—must not impose needless barriers. By making the most of shale gas, we can support new manufacturing capacity here in the United States, good high-paying jobs and economic growth and prosperity for years to come.

The CHAIRMAN. Thank you very much.

Next will be the Honorable Keith Burdette, Secretary, West Virginia Department of Commerce.

**STATEMENT OF J. KEITH BURDETTE, EXECUTIVE DIRECTOR,
WEST VIRGINIA DEVELOPMENT OFFICE, AND SECRETARY
OF THE DEPARTMENT OF COMMERCE, STATE OF WEST
VIRGINIA**

Mr. BURDETTE. Senator, thank you very much—Congressman McKinley, Congresswoman Capito. It's an honor to be here and be asked to address these issues.

My name is Keith Burdette. I'm the Executive Director of the West Virginia Development Office and Secretary of the West Virginia Department of Commerce.

Make no mistake. Marcellus Shale can change the dynamics of the West Virginia economy. Geologists are concluding that the Marcellus region could be the most significant shale play in the country. Before Marcellus, estimates were that our State had recoverable natural gas reserves of 3 trillion to 5 trillion cubic feet. Now that estimate is increasing ten-fold.

But it is the wet components of the Marcellus, especially ethane, that is attracting so much attention and which may hold out the greatest long-term opportunities for our state. Even today, although substantially diminished, West Virginia has 150 companies that specialize in chemical and polymer production. We rank sixth among all States in the share of our overall GDP that comes from chemicals and polymers. Twenty-five percent of our international exports are still currently chemicals and polymers.

Access to competitively priced natural gas largely brought these industries to West Virginia. We believe that abundant low-cost ethane-related feedstock can bring them back. Since 2009, between \$4 billion and \$5 billion in new investments in natural gas infrastructure have occurred in West Virginia, two-thirds of that in the last 24 months.

For the past year, yes, our administration has aggressively pursued the recruitment of ethane crackers, plural, to our state and our region. We believe there is strategic importance to them being located here. And while we were disappointed by Shell's announce-

ment, the location 10 miles from our border is still a very positive one. And I'm happy to discuss the specifics of that process in greater detail at the appropriate time.

However, we are convinced a second and possibly even a third cracker could be built in West Virginia, and we're optimistic those decisions will be made later this year. Ethane crackers will serve like an anchor store in a manufacturing mall, attracting smaller manufacturers who can take advantage of low-energy feedstock and transportation costs, employing thousands upon thousands of West Virginians.

West Virginia is doing its part. Governor Tomblin and the West Virginia legislature, as mentioned earlier, acted quickly and decisively last year to implement horizontal shale drilling rules in the state, one of the first in this region of the country. We've developed appropriate incentives to attract an ethane cracker.

We've put our financial house in order so that businesses located here can plan for their expenses. We're lowering business taxes to nationally competitive levels. We've privatized our workers' compensation program, and now rates are 10 percent below the national average. Unlike 28 other states, we didn't borrow money from the Federal Government to pay unemployment benefits.

We're now considered by the Frazier Institute as the sixth best place in the world for oil and gas development. We have the building blocks, but there is still much to do.

Thanks to your efforts, Senator, specifically, and those of CSX and Norfolk Southern, we made real progress in the negotiation of rail rates in order to attract a cracker. But captive rail rates still create concern within the industry. An adequate rail structure is still a concern within the industry.

We need to prepare our workforce for the changing economy. We need to expand our technical education and make it relevant to the opportunities that are before us. We need to continue to expand our infrastructure to provide storage and distribution of critical raw materials. We have major site issues. God gave us a spectacular state, but not a lot of flat land.

We need to continue to create a climate of regulatory certainty that properly monitors the industry, establishes the appropriate safeguard for our environment, but allows our state to pursue and develop these new opportunities. We believe it's in the best interest of West Virginia. We think it's in the best interest of the country.

Thank you, sir.

[The prepared statement of Mr. Burdette follows:]

PREPARED STATEMENT OF J. KEITH BURDETTE, EXECUTIVE DIRECTOR, WEST VIRGINIA DEVELOPMENT OFFICE, AND SECRETARY OF THE DEPARTMENT OF COMMERCE, STATE OF WEST VIRGINIA

Mr. Chairman, Thank you very much. My name is Keith Burdette. I currently serve as Executive Director of the West Virginia Development Office and as a member of Governor Earl Ray Tomblin's cabinet as the Secretary of the Department of Commerce. I am pleased that the United States Senate Commerce Committee and particularly the chairman, Senator Rockefeller would focus their attention on the opportunities associated with the development of Marcellus and Utica shale reserves located under much of West Virginia.

West Virginia is an energy state. We have a long, proud history of providing low cost, readily available energy to this country. It can be dangerous and dirty work, but we have provided the essential fuel for the economic engines of this Nation since

before West Virginia became a state. Our location, central to our Nation's population, makes our resources readily accessible to our Nation's consumers. While considered a coal state by most, our broad array of energy resources enables a per capita production of energy exceeded only by the state of Wyoming. We export two thirds of the electricity produced in West Virginia. We are number three behind Pennsylvania and Alabama in the amount of net electricity we put in the electricity grid. We are also active in renewable energy markets with 581 installed megawatts of wind power and 327 MW of hydro power. We remain active in oil markets. Our oil is paraffin based, suitable for refining into lubricating oils. But today, we are here to talk about another energy resource, natural gas. West Virginia is the only natural gas exporter among the eastern states. We have been a natural gas producer for 150 years. From 1906 to 1917 West Virginia was the leader in gas production in the United States. Given the advent of directional drilling, we have access to a new source of natural gas—Marcellus Shale.

The Marcellus resource generally extends from New York to Ohio. In West Virginia, most of our state overlies the Marcellus Shale. Marcellus Shale is a game changer for West Virginia. Geologists are concluding that the Marcellus resources could be the most significant shale play in the country. Before Marcellus, we were estimating our state natural gas recoverable resource at 3–5 trillion cubic feet. Now, that estimate could be increased by a factor of 10. Marcellus is located 5–6,000 feet below the surface. Marcellus wells are producing from our Northern Panhandle to McDowell, our southernmost county. Below the Marcellus at 10,000 feet we have the Utica Shale resource. This is undeveloped in West Virginia, but could share the same transportation/processing infrastructure being developed for the Marcellus. Most major oil and natural gas companies will be active in these shale plays in West Virginia.

The chemical industry in West Virginia has been our state's second largest employer next to coal. The first petrochemical plants in the U.S. were built in West Virginia by Union Carbide, first at Clendenin on the Elk River and then at Blaine Island on the Kanawha River adjacent to South Charleston. South Charleston, as does Wilmington Delaware, bills itself as the Chemical Capital of the World. Chemical research continues to be a university focus through our university system.

The early days of the chemical industry focused on local raw materials and regional markets. Today, we are truly a global economy. We are not just competing with domestic industry, but we are competing with countries around the world, including Qatar, Indonesia, and Malaysia. For all industrial applications, the costs of energy is a critical determinate in whether or not your products can be competitive on the world market. Natural gas prices have had a history of dramatic fluctuations. Today's \$2.20 per MCF is an example. While industrial and residential customers are benefitting from low natural gas prices, we anticipate prices stabilizing in the \$4–\$5 range. Long term stable prices will send the market signals necessary for the orderly development of our natural gas resources.

West Virginia is home to 150 chemical and polymer manufacturing companies that employ over 12,000 workers. In fact, West Virginia is ranked 6th among states in the share of overall GDP that comes from chemical and polymers. Twenty-five percent of our international exports are chemical and polymers. Access to competitively priced natural gas brought these industries to West Virginia. With Marcellus, we can look to an expansion and diversification of our chemical industries.

Ethane is the building block for the plastics industry. Ethane, along with propane and butane, are the wet components of natural gas production. Conventional natural gas production has 3 percent ethane. Marcellus could have up to a 10 percent ethane content. In our earlier chemical industry history, we had ethane pipelines. We had a vibrant plastics industry. As ethane supplies dwindled those ethane transportation lines were taken out of service and much of the plastics industry moved to the Gulf Coast in response to cheaper natural gas and ethane costs. West Virginia and other Marcellus Shale states now have an opportunity to regain a competitive edge in the chemicals and plastics sectors. Since 2009, West Virginia has witnessed over \$3 billion of investments in natural gas infrastructure (pipelines and processing plants) to get the Marcellus to market. Even in a market in which a glut of cheap natural gas, production in the "wet" areas of the Marcellus continues. In one county of West Virginia, one company will spend \$750 million in production activities in the next 12 months.

For the past year our goal has been to attract an ethane cracker plant to West Virginia specifically and the region in general. A cracker plant converts ethane into ethylene. A local supply of ethylene would dramatically impact transportation costs and create an economic climate that could allow for a rebirth of the plastics and chemical industry in our state and in this region of the country. With Shell recent announcement that they will explore building a cracker facility about 10 miles

from the West Virginia border in southwest Pennsylvania, we believe the first important steps have been taken. We are convinced a second and possibly even a third facility can be built in our state. The impact could be huge. Just from an operational picture, a world class cracker will likely require an investment from \$3 billion to \$5 billion. It will take four years to design and build. At peak construction, between 7500 and 10,000 construction workers will likely be involved and 500 to 1000 permanent operation jobs. More important, the facility would serve like the anchor store in a manufacturing mall, attracting smaller manufacturers who can take advantage of low cost feedstock and transportation costs.

West Virginia is doing its part. Governor Tomblin and the West Virginia Legislature have passed legislation governing the regulation of horizontal shale drilling, because we understand the importance of regulatory certainty. We've developed appropriate incentives. We've taken the appropriate financial steps as a state to be competitive. We have lowered business taxes, improved our bond ratings, expanded our cash reserves and enhanced our business climate. West Virginia privatized our Workers Compensation program resulting in rates that are now 10 percent below the national average. Unlike 28 other states, we haven't borrowed funds from the Federal government to pay unemployment benefits. Instead we have a stable fund with \$100 million in the bank. We are now considered the sixth best place in the world for oil and gas development, according to the Frazier Institute.

We have the building blocks, a trained chemical industry workforce, abundant supplies of ethane rich natural gas, and a robust infrastructure. There is still much to do. We need to expand the technical training that will be required for West Virginians to compete for the new manufacturing jobs that could be in our future. We need to develop storage opportunities and explore the creation of an ethane hub for this region of the country so that there is created a stable reliable supply of ethane long into the future. We need to be nimble and responsive to the changing economic opportunities around us.

West Virginia is looking forward to increased employment opportunities, new markets for domestic energy, and enhanced economic benefits to our citizens and communities. With increased natural gas development in West Virginia, we feel these developments are within our reach. I look forward to your questions.

The CHAIRMAN. Thank you. Thank you very much, Keith Burdette.

And now Mr. Dean Piacente, Vice President of Chemicals and Fertilizer, CSX Transportation, Inc.

**STATEMENT OF DEAN PIACENTE, VICE PRESIDENT OF
CHEMICALS AND FERTILIZER, CSX TRANSPORTATION, INC.**

Mr. PIACENTE. Thank you, Senator Rockefeller, Congresswoman Capito, and Congressman McKinley for having us in attendance to share our comments on this important topic.

My responsibility at CSX is handling our chemical and fertilizer customers, managing that customer base, and helping grow that business. And CSX is the largest freight railroad in the eastern United States.

I'd like to cover three important points. First is the impact that shale drilling has had—both a negative and a positive impact on our business. Our domestic coal utility business has seen a significant downturn as a result of low natural gas costs and other regulatory pressures in that industry.

Conversely, shale gas drilling is affording us an attractive opportunity to somewhat offset those losses by moving products for drilling, such as frack sand, pipe for drilling, pipe for transmission, and bringing gas liquids to market, and crude oil products to market as well. We're also finding an interesting opportunity to move raw materials to make pipe, like scrap materials.

We're seeing strength in our chemicals and our steel business. Just a few years ago, we were faced broadly across our network with many of our chemical customers shutting down their plants

because of high gas costs here in the country. And we're finding ourselves now competing aggressively to try and land new business and expansions in that sector.

Our industrial development group has a laundry list of new sites in West Virginia, as well as other states, to take advantage of gas drilling, and there's been a remarkable turnaround. And for the first time that I can recall in the 8 years I've been in this position, we're finally seeing opportunities to export chemical products off the east coast, where just a few years ago we were looking at imported plastic products, for example.

The second point I'd like to make is that we're competing aggressively to site new businesses along our right-of-way in West Virginia and other states, and we've been very successful. We're working cooperatively with all parties to do this, and we know we need to. And we want to provide competitive rail rates, fair contracts, and, in many cases, multiyear contracts to our customers to give them some certainty when they're making their investments. Senator Rockefeller has stressed this to us in our meetings with him, and it's in our best business interest to do that.

Our recent successes here in West Virginia include two natural gas plants—two natural gas liquid plants that will open later this year and into next year, numerous frack sand terminals, and we have a frack sand terminal in Benwood, West Virginia, one in Clarksburg, and I'm happy to announce that today we'll open another one right here in Fairmont, West Virginia, to serve the gas industry here, and that creates jobs. It's very fortunate timing, coming here on the same day we're opening the terminal. So we'll be traveling over there afterwards.

We believe we're a good citizen in the State of West Virginia. We're very committed to the state. In 2011, our customers here in the state invested more than \$550 million in rail-served facilities, more than any other state in our network. And CSX is also making investments in terminals to foster that growth. We're addressing capacity constraints.

We've purchased new railroad cars to support the frack sand industry. We're addressing capacity constraints in this particular area. As business flows have changed over the last few years, we've had a very strong network in West Virginia. But we find ourselves in an interesting position of having a huge concentration of new business right in this area. And so we're in the process of addressing those kinds of capacity constraints.

The last point I'd like to make is that we hope that state and Federal Government incentives will encourage development. We have a great transportation infrastructure here in the U.S. in many States as well as export terminals, but we'll need more. We'll need more infrastructure. We'll need things like prompt review of permits, and we would hope that our Federal and state governments carefully consider legislation and regulation that might hinder this growth.

Thank you very much for your time.

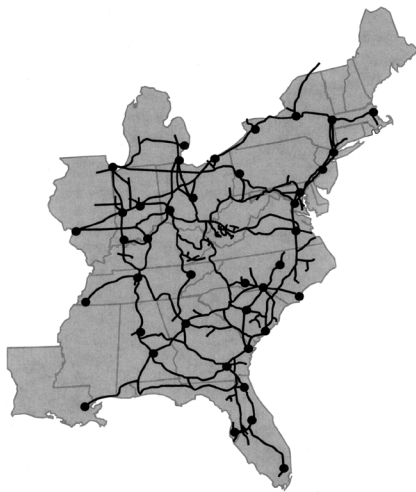
[The prepared statement of Mr. Piacente follows:]

**CSX Comments to Senate
Commerce Committee
Field Hearing**

Fairmont, WV
April 11, 2012



CSXT's Rail Network Spans 21,000 Miles In The Eastern U.S.

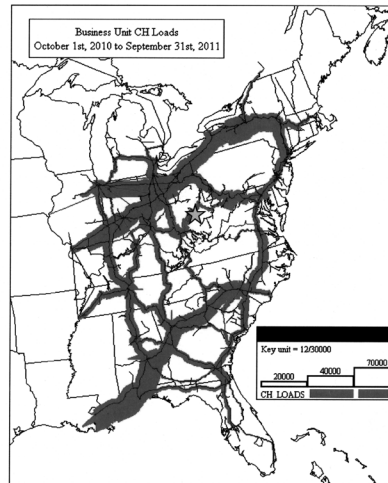
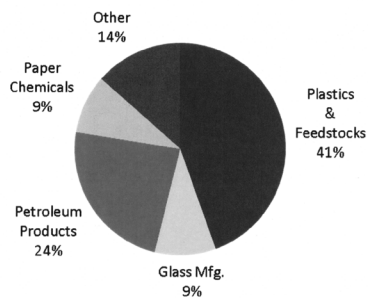


- CSXT serves over two thirds of U.S. population
- Connects all major metropolitan areas in the eastern U.S.
- CSXT provides broad access to East Coast and Gulf Coast ports
- Network positioned to compete for new businesses
- Superior market reach into Northeast and Florida



CSX has extensive experience handling chemicals in a safe and efficient manner

- Represents \$1.5B of CSX revenue
- 60% of Eastern rail market share
- Diverse market using all areas of the CSXT network
- WV chemical producers are a major part of CSX's business
- CSX operates over 2,000 miles of track in WV, and employs 1,700 people



How tomorrow moves [CSX]

The shale gas boom has created a unique opportunity to locate new petrochemical plants in WV

- Close proximity to primary raw material, ethane from Marcellus shale wet gas stream
- Fractionators:
 - Wet gas is piped into fractionator unit, where natural gas liquids (NGL's) are separated from the gas stream
 - NGL's can be shipped out via rail, truck, barge or pipeline
- Ethane Crackers:
 - Ethane, the primary NGL, is piped to a "cracker" plant and converted to ethylene
 - Ethylene is then made into Polyethylene (PE), Ethylene Glycol and other commodities that can move out via rail, truck or barge
- WV is closer to a large segment of chemical demand in eastern US
 - Most PE production today is located in TX, LA and western Canada
- WV is positioned well within the CSX network
 - We can reach all major points within 3 to 4 days
 - Access to every other Class I railroad and 240 short line railroads
 - Direct connection to several major ports for exports

How tomorrow moves [CSX]

CSX has had recent industrial development success in WV

- Recent new customer site announcements in WV have generated thousands of carloads of new business for CSX and new jobs for the state:
 - Dominion Energy, Natrium, WV: Natural Gas Liquids plant
 - 45 jobs, \$400 million investment
 - Caiman Energy, Moundsville, WV: Natural Gas Liquids plant
 - 25 jobs, \$100 million investment
 - Armstrong Tile, Ravenswood, WV: Ceiling Tile Manufacturing
 - \$40 million investment
 - Fluids Management, Benwood, WV
 - 15 jobs, \$2 million investment
 - TRANSFLO, a unit of CSX, is opening a new rail-to-truck transloading facility to handle frac sand in Fairmont, WV
 - Several major coal facility / new mine development activities in WV, including Arch-Tygart Valley project and United-Roaring Creek project

Steve Davis – CSX Industrial Development Manager:

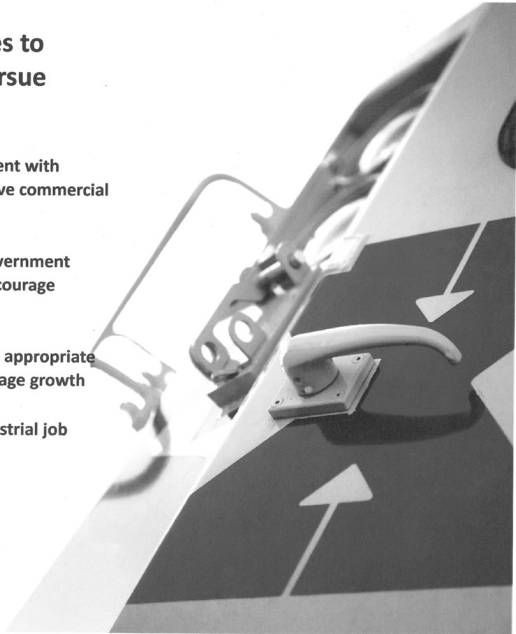
“In 2011, West Virginia led every other state in investments in rail-served facilities on the entire CSXT system.”
CSXT recently awarded a CSXT Regional Development Partnership Award to the Wheeling Regional Development Partnership for its development efforts in 2011.



CSX is competing vigorously to locate new chemical plants on our network and in West Virginia

- CSX is actively engaged with parties interested in building new chemical plants in the Marcellus and Utica Shale states
- CSX maintains close working relationships with WV economic development officials
- New chemical plants in WV offer attractive long-term benefits for both WV and CSX
 - More jobs
- Somewhat offsets declining domestic coal business
- CSX also participates in movements of pipe for drilling and transmission and raw materials to manufacture pipe





In closing, CSX continues to support and eagerly pursue opportunities in WV:

- CSX is encouraging development with incentives and very competitive commercial packages
- We hope state and federal government incentives will continue to encourage development
- Prompt reviews of permits for appropriate infrastructure will also encourage growth
- This growth will promote industrial job creation

THANK YOU

HOW MANUFACTURERS MOVE **CSX**

The CHAIRMAN. Thank you very much, Mr. Piacente.

Now will be Patrick Donovan, who is Director of Maritime and Intermodal Transportation at the Rahall Appalachian Transportation Institute.

STATEMENT OF PATRICK J. DONOVAN, DIRECTOR OF MARITIME AND INTERMODAL TRANSPORTATION FOR THE NICK J. RAHALL, II APPALACHIAN TRANSPORTATION INSTITUTE (RTI), MARSHALL UNIVERSITY, HUNTINGTON, WEST VIRGINIA

Mr. DONOVAN. Senator Rockefeller, Congresswoman Capito, and Congressman McKinley, distinguished guests, good afternoon. I'm Patrick J. Donovan, Director of Maritime and Intermodal Transportation for the Nick J. Rahall, II, Appalachian Transportation Institute at Marshall University, Huntington, West Virginia. I'm both humbled and honored to have this opportunity to appear before this committee today.

Before I begin my remarks, I'd like to take a moment to bring greetings to this distinguished committee from Robert H. Plymale, Chief Executive Officer and Director of the Nick J. Rahall Appalachian Transportation Institute. He could not be with us today but states, "The Rahall Transportation Institute appreciates Senator Rockefeller inviting us to speak to the Committee to highlight these important issues. We appreciate your recognition of the important role that the Rahall Transportation Institute plays in the future of transportation and economic development."

Today I'll focus my remarks on the downstream manufacturing for the chemical sector as it pertains to maritime and intermodal

transportation. The post-World War II national economy of the United States and the creation of the Eisenhower Interstate Highway System led to one of the longest periods of economic expansion in United States history.

President Kennedy recognized that the economy of the Appalachian region, in general, and West Virginia, specifically, were lagging behind the rest of the United States. The Appalachian Regional Commission was formed, which led to the development of the Appalachian Development Highway System, which is a 3,090 mile road system covering 13 States and comprised of 31 individual transportation corridors. This ADHS is over 85 percent complete today.

However, the emerging global economy of today requires a surface transportation system that would provide for true global connectivity. The global economy of the 21st century is driven by a surface transportation system that is reliant on access to export markets. The 21st century transportation mode of choice is intermodal transportation. The number of global container ports in the United States has increased from 75 ports in 1970 to over 550 ports in 2005. Container volume throughput in United States gateway ports has increased from 1 million containers in 1970 with projections of over 100 million containers in 2050.

Both Utica and Marcellus Shale natural gas have the potential to reinvigorate manufacturing throughout the Ohio and Kanawha River Valleys. The legacy transportation systems of the national economy will continue to provide connectivity to those national markets. However, to fully maximize the potential economic development of our region, transportation projects of regional and national significance need to be fully funded and then completed.

The September 2010 opening of the Norfolk Southern Heartland Corridor now allows for double-stack container rail service from the ports of Virginia through southern West Virginia and all points west. The West Virginia Public Port Authority recently received a \$12 million Tiger III Grant from the United States Department of Transportation to help facilitate the construction of the Prichard Inland Intermodal Terminal. We anticipate construction of this terminal to begin in the spring of 2012.

Another project, the CSX National Gateway Corridor Project, will improve the flow of rail traffic throughout the Nation by increasing the use of double-stack trains, creating a more efficient rail route that links Mid-Atlantic ports with Midwest markets. A much anticipated inland intermodal terminal to be sited in the Greater Pittsburgh region will be situated to provide direct intermodal container service for both the Utica and Marcellus Shale natural gas downstream manufacturers needing access to export markets.

The United States Department of Transportation, Maritime Administration, and the Marine Highway program have the potential to provide those shale natural gas downstream manufacturers with potential transportation options. The north-south orientation of the Ohio River Valley navigation system can provide shippers with all-water access into South American markets. There is much to be done to successfully implement America's Marine Highway program as the nation attempts to move from a transportation system

built for the national economy of the 20th century into an intermodal global supply chain of the 21st century.

RTI continues to provide national leadership on these issues with the establishment of the Marine Highway Maritime Technology Consortium, partnering with organizations joined to form the Marine Highway Technology Consortium and include the Center for Commercial Deployment of Transportation Technologies, California State University Long Beach, University of New Orleans Transportation Institute, University of New Orleans, and the Great Waters Maritime Institute.

The purpose of this consortium is to work cooperatively toward the design of the next generation inland navigation vessel and related activities. The consortium's activities support the United States Department of Marine Highway Transportation goals of the 21st century supply chain. We believe that brownfields will play a critical role in the economic development of our region.

Once again, Senator Rockefeller and distinguished guests, thank you for providing the Rahall Transportation Institute the opportunity to come before this distinguished committee.

[The prepared statement of Mr. Donovan follows:]

PREPARED STATEMENT OF PATRICK J. DONOVAN, DIRECTOR OF MARITIME AND INTERMODAL TRANSPORTATION FOR THE NICK J. RAHALL, II APPALACHIAN TRANSPORTATION INSTITUTE (RTI), MARSHALL UNIVERSITY, HUNTINGTON, WEST VIRGINIA

Senator Rockefeller, distinguished guests, good afternoon. I am Patrick J. Donovan, Director of Maritime and Intermodal Transportation for the Nick J. Rahall, II Appalachian Transportation Institute (RTI) at Marshall University in Huntington, WV. I am both humbled and honored to have this opportunity to appear before this distinguished committee today. Before I begin my remarks, I would like to take a moment to bring greetings to this distinguished committee from Robert H. Plymale, Chief Executive Officer and Director of the Nick J. Rahall, II Appalachian Transportation Institute. He could not be here today, but states, "The Rahall Transportation Institute appreciates Senator Rockefeller inviting us to speak to the Committee to highlight these important issues. We appreciate your recognition of the important role that the Rahall Transportation Institute plays in the future of transportation and economic development." Today I will focus my remarks on the downstream manufacturing for the chemical sector as it pertains to maritime and intermodal transportation.

The post-World War II national economy of the United States and the creation of the Eisenhower Interstate Highway system led to one of the longest periods of economic expansion in the history of the United States. President Kennedy recognized that the economy of the Appalachian Region in general and West Virginia specifically were lagging behind the rest of the United States. The Appalachian Regional Commission (ARC) was formed which led to the development of Appalachian Development Highway System (ADHS) which is a 3,090 mile road system covering 13 states and comprised of 31 individual transportation corridors. This ADHS is over 85 percent complete. However, the emerging global economy of today requires a *surface transportation system* that will provide for true global connectivity.

The global economy of the 21st century is driven by a surface transportation system that is reliant on access to export markets. The 21st century transportation mode of choice is intermodal. The number of global container ports in the United States has increased from 75 ports in 1970 to over 550 ports in 2005. Container volume throughput in United States gateway ports has increased from 1 million containers in 1970 with projections of over 100 million containers in 2050.

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Another project, the CSX National Gateway Corridor project, will improve the flow of rail traffic throughout the Nation by increasing the use of double-stack trains, creating a more efficient rail route that links mid-Atlantic ports with mid-western markets. A much anticipated inland intermodal terminal to be sited in the Greater Pittsburgh region will be situated to provide direct intermodal container service for both the Utica and Marcellus Shale Natural Gas downstream manufacturers needing access to export markets. The United States Department of Transportation, Maritime Administration and America's Marine Highway program have the potential to provide those shale natural gas downstream manufacturers with potential transportation options. The north-south orientation of the Ohio River Valley navigation system can provide shippers with "all water" access into South American markets. There is much to be done to successfully implement America's Marine Highway program as the Nation attempts to move from a transportation system built for the national economy of the 20th century to an intermodal global supply chain for the 21st century.

RTI continues to provide national leadership on these issues with the establishment of the Marine Highway Maritime Technology Consortium (MHMTC). Partnering organizations have joined RTI to form the MHMTC and include: the Center for the Commercial Deployment of Transportation Technologies, California State University Long Beach, University of New Orleans Transportation Institute, University of New Orleans and the Great Waters Maritime Institute. The purpose of the MHMTC is to work cooperatively towards the design of the next generation inland navigation vessel and related activities. The consortium's activities support the United States Department of Transportation Marine Highway goal of successfully integrating the inland navigation system into the 21st century supply chain.

Utica and Marcellus Shale natural gas have the potential to turn our region's post industrial manufacturing sites or brownfields into new growth opportunities including sites for new manufacturing and intermodal warehousing and distribution. The majority of these post-industrial manufacturing sites are situated in close proximity to both emerging global intermodal rail service and marine highways thus providing shippers with transportation alternatives to ship or receive their products. With proper planning and coordination between both the public and private sectors, the Appalachian region will be an inland intermodal marketplace for the 21st century.

Once again, Senator Rockefeller and distinguished guests, thank you for providing the Rahall Transportation Institute the opportunity to come before this distinguished committee.

The CHAIRMAN. You're very welcome, and I thank you, Mr. Donovan.

And Steve White, Director of Affiliated Construction Trades, West Virginia State Building and Construction Trades Council, you're up.

**STATEMENT OF STEVE WHITE, DIRECTOR,
WEST VIRGINIA AFFILIATED CONSTRUCTION TRADES**

Mr. WHITE. OK. Last but not least, I hope, Senator. Thank you very much for the opportunity to be here.

And my Congresswoman Capito and Congressman McKinley, I appreciate your being here as well.

I represent 20,000 union construction workers in the State of West Virginia, 14 different crafts. We are excited about the opportunity—and "opportunity" is a word we've used quite a bit today. But I think opportunity is not a guarantee. So I bring to you two big concerns that I'd like you to consider focusing on.

Of course, when we're talking about infrastructure, I think human infrastructure is a very important piece of the puzzle, that

is, the skills that are needed to do the job or the jobs that are created. It's very important that we focus on the local workforce having the opportunity for those jobs.

I can tell you from a workforce point of view that we are highly skilled, highly trained in all our crafts. We have a great infrastructure for training programs, as well as a drug-free work force. You know, that's been quite an issue lately in the area. While the Nation suffers from drug problems, West Virginia no different. We have a dedicated drug-free program, testing pre-employment, et cetera. So I can tell you that we have the workforce to do the work from the boom, and we are doing a lot of the work.

Pipeline is talked about, and our folks are the best and they're getting a lot of that work, and that's great. But we're not doing as much as we could. I think we really could do more in terms of employing local people, because construction unemployment remains high.

Manufacturing decline is part of that. Where the plants no longer are, we no longer have construction opportunities. That's not just our work force. It's our contractors that we work for. So opportunities are important, but we need to do more to maximize the chance for our local workers and contractors to get onto these jobs.

The other area I want to focus on is that we shouldn't be in a rush to export the raw material. We should be looking at the value-added products. So as the Commerce Committee, when you're overseeing some of these decisions about pipelines and export, don't be in a rush to export the raw material. Give the domestic and West Virginia manufacturing and other industries a chance to buildup the infrastructure that they'll need then to benefit, and then—you know, we understand that businesses have to get the best price. But we perhaps need a little patience and time to build that infrastructure.

A couple of areas—I know I've been able to work—invited to be on some panels with the West Virginia Manufacturers Association. They are excited about the abundant raw material, natural gas, and the ethane that could be here. And they don't want to see anything exported in terms of the ethane, because they want to see it built right here. But they're going to need time to get to that.

And the other thing that was talked about was the infrastructure—or the use of the natural gas for vehicles. The infrastructure just simply isn't there. And my concern is if we're in a rush or industry is in a rush—and, obviously, they want to get their best price—but to get the best price somewhere else, we're going to miss a tremendous opportunity.

So I'll conclude to say we've got a great workforce here, a good contractor base as well. They need more opportunity to get this work. And we should focus on the value added right here in West Virginia.

Thank you.

[The prepared statement of Mr. White follows:]

PREPARED STATEMENT OF STEVE WHITE, DIRECTOR,
WEST VIRGINIA AFFILIATED CONSTRUCTION TRADES

Thank you, Senator Rockefeller, for bringing this very timely hearing to West Virginia.

Development of the Marcellus Shale and the Utica Shale, across the river in Ohio, has the potential to create thousands of jobs for West Virginians. I remain optimistic about this potential, but the jury is still out.

Make no mistake, this is not the gas industry we have grown up with; it is akin to a modern day gold rush with vast resources and billions at stake. Please don't confuse the new with the old.

There has been a focus on drilling jobs, but the vast majority of jobs directly related to shale development are construction jobs—building the pipelines and processing facilities.

I am here today on behalf of the state's 20,000 union construction workers. These men and women are a critical part of West Virginia's infrastructure, no less than a road or bridge.

Whether or not West Virginia prospers from the Marcellus development in many ways hinges on whether or not our local workforce succeeds in getting the jobs.

We have every reason to believe they can succeed because our 20,000 workers, representing 14 skilled crafts, are well-trained and certified drug free. Our workers can perform any construction task there is relating to Marcellus activity. They're ready to go to work today.

Each of our member unions has a comprehensive apprenticeship program that lasts anywhere from 2 to 5 years. We have 32 state-of-the-art training centers scattered across West Virginia providing an education funded by unions and employers. Apprentices "earn while they learn" and when they complete their training, they have no student loans to pay off.

There has been a great deal of public discussion about drug issues, so I stress that all of our members are regularly drug-tested during their training and employment. They come to an employer certified drug-free.

Not only are these men and women drug-free and highly trained, they are productive members of their communities. They volunteer, pay taxes, raise their children and vote right here. They are the workers who have built the region—its chemical and power plants, manufacturing facilities, schools, hospitals, offices, bridges and more.

Many are currently working on gas-related construction, building pipelines and processing facilities for companies such as Caiman Energy and MarkWest Liberty. They are employed by local contractors like the Chapman Corporation and Apex Pipeline Services, to name a few.

Unfortunately too many companies are importing workers and too many local businesses are not given a chance to bid projects. We need to encourage all companies to hire locally.

If local workers and contractors aren't given a chance for these good-paying jobs, then we've lost a tremendous opportunity to build stronger families and communities and a better future for our next generation.

Our declining manufacturing base means fewer prospects for local contractors and workers. Unemployment remains high in the very same region where prosperity seems so bright.

When a plant closes and we lose hundreds of jobs, there is a huge uproar, and rightfully so. Yet, when companies bring in out-of-area workers and we lose hundreds of local jobs, there is little outcry.

According to a recent study by Marshall University's Center for Business and Economic Research, using local workers to build just one large gas processing facility could add \$86.4 million in wages into the local economy. However, hiring non-local reduces that figure to \$9.8 million.

We have an unprecedented opportunity in shale development, so let's make sure all West Virginians have a chance to benefit.

The CHAIRMAN. Thank you very much, Steve White.

We'll go now to our questioning. And we had actually sort of divided it up into the three categories that I had suggested we were going to discuss. But, you know, some of us had more time to prepare than others. So we're going to kind of freelance it, and you get the same result, and sometimes it's more fun.

So what we will do is that I will ask two questions, and then I'll go to Congresswoman Capito, then to Congressman McKinley. And I get the advantage because I chair the Commerce Committee. So I get two questions, and they get one. But the point is we're each going to be—we'll just be coming at you at various different directions. So be alert.

I'm going to start with you, Paul Mattox. What, under state law or state practice or departmental law, is the maximum amount of weight that a truck can carry?

Mr. MATTOX. It's currently 120,000 pounds in our coal resource transportation system. Off the system—

The CHAIRMAN. Is that on a truck or a train?

Mr. MATTOX. Those are trucks. Generally, 80,000 to 65,000 is more in line with most roads in the State.

The CHAIRMAN. The reason I asked that is I wanted to go to the sheriff next.

You had indicated that 40,000 is what you had assumed was the maximum weight. But what you said is that these out-of-state folks would come in—subcontractors—they would come in. And you were very, very helpful in your testimony, because you said that they tended not really to care, maybe—you didn't say they didn't know what state they were in, but they were certainly going from one state to another state to another state. And therefore, they wouldn't necessarily have, one, an understanding of West Virginia roads, and, believe me, that's an art form.

It's very interesting to bring somebody from elsewhere in the country and put them in a power wheel situation on West Virginia roads. They'll usually stay on those roads, but not always.

So just the act of running a truck at 80,000 or 120,000, if that is what—and I don't know that for sure. I'll have to ask one of the companies if they have their subcontractors carrying that kind of weight—scares the dickens out of me, simply because I was brought up on Route 52, not literally, but that was my—and that was a pretty big secondary road. It just mostly crumbled into the valleys beneath it because of the weight of the coal trucks and so.

And I remember with coal trucks—I mean, we had—when I was Governor, we had go-rounds—and probably your father, too, Congresswoman Capito—with—they'd go through with tremendous amounts of coal, but they wouldn't put a tarp on. So the dust just went into everybody's house, and it became a really big problem. We finally got them to agree to put on a tarp—a lot of controversy on that, but it turned out to be a good thing.

But the amount of weight that a truck can carry when they have to make the enormous numbers of trips—and I've got a chart here that explains how many for each purpose they have to make to a single site, let's say, where a pad is being put in and a drilling project is about to start—is very, very important.

So can you comment on this 120,000 pounds or on the 80,000 pounds and how you see that with respect to the concerns that you expressed, which were very genuine, on-the-ground concerns of a practicing sheriff with a limited number of deputies and a limited number of dollars?

Mr. GRUZINSKAS. Yes, sir. I think that that's—I think you've got a good grasp of that situation. Normally, our county roads—and I

think Mr. Mattox can help me out here—is 43,000 or 45,000 pounds out in the country. These contractors can apply for permits to run over weight and over length and over height. And you have a chart, so you know how many trucks they need to supply one well site with either sand or fracking water or whatever product that they're bringing.

So in some cases, we have had situations where there would be 60, 70 of these overweight vehicles going to a well site. And that relentless damage or that relentless pressure on these roads is crushing these highways. We had some situations on Bowmans Ridge Road, which is—although it's a very small road, it's one of our major arteries, and it's east and west. A vehicle carrying fracking mud or the drilling mud collapsed a section of the highway, and that's why that road—or a vehicle went over the hill.

So their own weight is their worst enemy and our worst enemy as well. This constant attack, this constant—and I don't mean that in a derogatory tone. But just that relentless pressure of all this weight on these roads is tearing them up.

When they have a convoy of 10, 12 trucks, and they meet oncoming traffic—and in many cases elderly people that are driving in the opposite direction—and they side swipe a vehicle, they don't stop. They don't stop. They just keep going. And, in turn, it's very difficult for us to try and identify the violators, because in many cases there might be 20 white tri-axle dump trucks. So we don't know who hit them.

But that's a problem we're seeing. And, I mean, that's boots on the ground looking at this.

The CHAIRMAN. OK. I'll just conclude by this. I think that if we do things right, this is a definite net- plus for the State in large terms and very, very exciting, particularly, from my point of view for the manufacturing downstream.

Secretary Mattox, how would you respond to that secondary road, 40 to 45? I thought that was the limit, then also 80 to 120? And we're talking about people here.

Mr. MATTOX. Generally, the posting of a road is controlled by small bridges that are posted. And it just depends on which road that you're on in the county route system. But, generally, the larger loads—we do require them to get permits. They generally are required to have escorts with them.

And just listening to the sheriff speak—some of the things that I'll discuss with our folks is maybe imposing speed limits on roads that are utilized by the oil and gas industry and also take a look at the roads that they're utilizing and look at maybe some better signing for curves, where the road narrows, where there's some issues that we can better inform the public about. As you mentioned, a lot of the subcontractors come from out-of-state. They aren't as adept at driving on our curvy, narrow back roads as some of our residents.

So I appreciate the sheriff's comments, and we'll look into seeing if we can make them a little safer for our citizens.

The CHAIRMAN. OK. I'm going to turn to Congresswoman Capito. But that is clearly a problem that's got to be nailed down. That's got to be a written policy. There's got to be understandings of categories of secondary roads, the very rural ones, the less rural ones.

Then you get up, eventually, to Route 52, which really isn't a secondary road at all, which was absolutely clobbered for 35 or 40 years and probably still is, a little less so.

I appreciate your answers, and so I turn to Congresswoman Capito.

Ms. CAPITO. Thank you.

I wanted to kind of follow up on kind of a combo question on the—when I was in Marshall County, I guess Chesapeake is building a pipeline to carry the water up—or is it already—it's already built—assuming that that will take some of these heavy trucks off the roads. Is that correct?

Mr. ROTRUCK. Congresswoman Capito, that's exactly right. In fact, we built an 11-mile pipeline from the Ohio River into Wetzel County, and that really does help. And as to getting truck traffic off the roads, recycling of water has been very important. That has lessened the amount of fresh water we needed to do hydraulic fracturing, because that weight is very related.

In fact, the Secretary will tell you when they did the new regs and they did the new policy, they looked at the amount of water that we'd use as a proxy for how we dealt with the roads in terms of bonding. So that will help us.

Ms. CAPITO. OK. So I guess what I'm getting to is after the fracking occurs and the well is producing, would it be a correct assumption to think that there would be less truck traffic on the road? Does it continue—you know, obviously, as new wells are being drilled, yes, it does continue. But can the residents of Marshall County anticipate a time where it will settle back down to them and they may go back to a little more life as normal, at least on the roads?

Mr. ROTRUCK. Yes, ma'am. I think that is the correct conclusion, yes.

Ms. CAPITO. Well, I echo the comments of the Senator that this is—I mean, we were just up on those roads, so I know exactly what you're talking about.

Mr. ROTRUCK. Yes.

Ms. CAPITO. And it's extremely important that those residents have the peace of mind that they're not going to get side swiped as they're going to church or wherever they're going.

Mr. ROTRUCK. Yes, ma'am.

Ms. CAPITO. Thank you.

The CHAIRMAN. Thank you.

And Congressman McKinley?

Mr. MCKINLEY. Thank you, Senator.

Mr. Albert, I've got a couple of questions, but, apparently, we're limited to one question right now. So let me just start with you, if you could, please. You heard Mr. Burdette say that economic certainty—or regulatory certainty would be a boon. And in your remarks, you talked about a growth environment to help manufacturing.

Can you give us some examples of what we need to do in Congress to address that so that we can improve our manufacturing base here in this country and especially here in West Virginia?

Mr. ALBERT. I think so. And I think Corky touched on one example I will tell you, and that's this ongoing—I'll call it consternation,

if you might, between the EPA and the Corps of Engineers when it comes to stream crossing permits. It is quite challenging. I think—and I won't speak for Chesapeake, but I know Scott Rotruck's company at one point had many wells shut in simply because they couldn't get pipeline permits due to this issue.

We face the very same thing. So it is a problem. Just one example of my company—in Pennsylvania, not West Virginia, but this is played out in every state, because it's the EPA and the Corps. We kept wells shut in for over 9 months to get stream crossing permits for areas that I would tell you that none of us would even consider being a stream. I'm talking about, literally, a depression in a hollow that, because it has a blue line on it on a USGS map, is now a navigable stream. And it requires months and months of permits and waiting on permits to get that. So that's just one example.

Another one—the Congresswoman touched on getting truck traffic off the road. We need centralized impoundments to be able to do that. And we are now again—not necessarily a Corps of Engineers nor EPA, but it is a lot of times a State of West Virginia DP or a Pennsylvania DP issue—getting centralized impoundments so that we can have water in one place and not have to truck it from site to site or even pipe it from site to site, because you're held, on one hand, where you can't get a permit to do a stream crossing forces you to put more truck traffic on the road to be able to conduct our business.

So when we talk about regulatory certainty, you know, none of us in industry want, you know, a free hand to do whatever we want to do. We just want to know what the rules are, and we'll play by them. But, you know, that's what we mean by certainty, just if we know what they are, we'll abide by them. But when they're changing literally every hour of the day, it's a very difficult climate to invest in.

Mr. MCKINLEY. Thank you.

The CHAIRMAN. Thank you, Congressman.

Mr. Albert, when you were making your presentation, you were talking about things that concern you as you plan. You didn't mention people. You mentioned other types of problems, EPA, et cetera, but not people. I repeat, again, I think on a net basis, this is going to be a really wonderful thing for West Virginia. That's what I care about.

But in order for it to be that way, we've got to do it right from the start. Now, there's some things we can change. There's some things we can't change. We can complain about everything, but we have to deal in some level of a real world.

So, I mean, I guess one question I would ask you would be in that there's such a—in going over the reams of comments that I get and these two folks get from constituents about overweight crushing of roads, going through yards, and terrifying all night long—whether or not there's a gas—you know, a water or gas transmission line or whatever, it's a fact of life.

So why is it that you don't get West Virginia drivers? Is there a law that says you have to have a subcontractor from Oklahoma or Texas or some other place?

Mr. ALBERT. No, and I will tell you—

The CHAIRMAN. And it would be an awfully good goodwill builder—

Mr. ALBERT. I will tell you that CONSOL Energy—we strive—as I said before, we employ over 4,300 people in the State of West Virginia. So we're one of the largest employers in the State. And we strive, whether it's through subcontractors or others, that we employ West Virginians. However, I can't mandate to my subcontractors: You have to employ, you know, X percentage of West Virginians.

The CHAIRMAN. You know what, I think you can, and I think most of them are not West Virginians, and perhaps all of them are not West Virginians, and I'm talking about the drivers. If you say you can't do it, maybe it's not in any written law or any business practice booklet, but I would think that you probably could do that.

Mr. ALBERT. Well, you know, to rephrase, I suppose—

The CHAIRMAN. Or else hire somebody else.

Mr. ALBERT. I suppose I could do that. But, you know, the practice of hiring contractors is we put the work out for bid, and we take what's the most economic for our company and our shareholders to do that. And I'll tell you we don't go by where the people are employed from.

Now, again, we strive to—and I wish I had the statistics. Again, CONSOL employs over 4,300 people in the State of West Virginia. We strive through our drilling contractors and our trucking contractors to do business with West Virginia firms. If we're in Pennsylvania, we try to do business with Pennsylvania firms. When we're in West Virginia, we try to do business with West Virginia firms. Those firms have to exist, you know. I can't create a trucking company in the State of West Virginia or in Marshall County, for example, if it's not there.

As much as I'd like for everyone employed for a well that we're drilling in Marshall County to be from Marshall County, if those workers aren't there, I can't—hopefully, as the demand picks up, people will see that it's a place—as the Congresswoman suggested, she's seen people coming back to her home State and her home county to take these jobs that are there. But, you know, if West Virginians aren't stepping up to fill them, I don't know what as an employer we can do to make that happen.

The CHAIRMAN. Well, I mean, you say that you have to take the lowest contract. I don't know if that's in the U.S. Constitution or not. I don't think so. But you do that because you say, well, you have stakeholder pressure on you if you didn't take the lowest contract.

But on the other hand, here you are for the long term in a State where unemployment is high, where people have extraordinary skills, mechanical skills, driving skills—most any teenager can fix any kind of a car that—you know, any problem that it has, and everybody knows how to drive West Virginia roads.

So, I mean, is it not possible that you would make an effort—and I could ask this of Mr. Scott Rotruck, too, at Chesapeake—to make an effort to make sure that the people who are—you know, if you've got to create something or work with West Virginia or whatever to make those West Virginia drivers, it's going to be a lot better for the roads. It's going to be a lot better for a lot of front

yards. It's going to be a lot better for a lot of scared kids and people who stay up all night because those trucks run all night.

Mr. ALBERT. Well, and before Mr. Rotruck answers, I'll tell you, just like Chesapeake, our first priority is safety. So, first and foremost, the person who's driving that truck has to be qualified. He has to have a CDL license in the State of West Virginia or whatever State we're operating in. So he has to be qualified.

All we can do, sir, is provide the opportunity, provide the mechanism for the job to be there. I can't mandate, nor will I mandate, that every driver come from the State of West Virginia. I will tell you that we're going to have a job creation engine that provides the jobs and the opportunities for people to step up. That's part of a free market economy. And, hopefully, there'll be—I'm a lifelong—born in West Virginia, raised in West Virginia my entire life. So I am sensitive to that need.

I didn't come here wearing cowboy boots from the State of Texas. I grew up in West Virginia. I'm proud of that. I'm proud of my heritage, and I will do everything I can to ensure that we employ West Virginians. But all I can tell you is that we will provide the opportunity. The person has to be there to fill the job, and they have to be qualified, and they have to be able to do it in a safe fashion.

The CHAIRMAN. Did you think, therefore, that the sheriff was overstating his case?

Mr. ALBERT. Absolutely not. I've been to Marshall County. I think the sheriff will tell you we have worked—CONSOL Energy has worked—we put CBs in the school buses in Marshall County so that school bus drivers could communicate with our subcontractors and our road people so they would know when our trucks were coming. We've been very proactive. We've spent over \$4.5 million in Marshall County alone repairing roads and upgrading roads.

So, absolutely, the sheriff is not at all talking about—if anything at all, he's probably underplayed the situation in Marshall County. It's very critical. But I'm telling you CONSOL Energy and, as I know, Scott Rotruck's company, Chesapeake, we have stepped up and we have done all that we can right now to—and I think the sheriff will tell you that. We've been as good a neighbors as we can be in Marshall County.

Do we have some subcontractors that are causing problems? Yes, we do. Do we deal with that in a proactive fashion when we find that out? Yes, we do. And are some of those people West Virginia drivers? Yes, they are. So, you know, I think it's a bit unfair to characterize it as the whole problem is just people from out-of-state causing the problems. That's part of it.

But, you know, a part of it is the situation of the roads that were there to begin with. But, again, we're working very hard and very proactively with Marshall County to correct the situation.

The CHAIRMAN. OK. Well, that's the end of me. Are you up or, Dave, you're up?

Ms. CAPITO. I just have a brief comment on the contractor issue. I've been curious to know—but I don't want this to be my primary question.

What kind of pre-training you do. It seems to me that—I know you put it out for bid and all that. But do you have, you know, pre-training of your drivers that come in to warn them—you know, pre-

pare them on the road? Or do they just—as long as they're getting the job done, that's what they do?

Mr. ROTRUCK. Congresswoman, we're very proactive in that regard. Senator Rockefeller mentioned earlier, first, be smart up front. We have learned a lot of lessons on what works better and better. As to the drivers, as Randy said, they have to have CDL licenses. That's a good—that's a very, very valuable thing for a worker to have. We're going to have to have a lot of truck drivers for a long time. And as has been observed, this is a special terrain.

It is always better for us to hire locally. For one thing, they become our Ambassadors. We want to hire locally. But the expertise is not in-house, Congresswoman. It lies in those vendors. But we have stand-downs and make certain that those vendors know that they have to be absolutely compliant with the regulations and the rules.

Are there problems? Yes, ma'am. Part of it is because our factory is spread far and wide, so it takes a lot of effort to manage it. But we're getting better.

Ms. CAPITO. I would think this would present an opportunity, too, for community colleges.

David, you mentioned that in your opening statement, that there's opportunities for the educational institutions to begin to train West Virginians to meet the challenges—to meet the demand and the opportunity for the jobs.

So my bigger question is—one of my fears of the development of this valuable resources is that we as a state—and, Mr. Secretary, you may help me with this—don't make sure that our citizens are the ones that are the most direct beneficiary of the riches that we have. We're suffering disruptions. We're making sacrifices. We know we've done this in other industries.

And when I think about re-ramping up the chemical industry, say, in the Kanawha Valley or going up the Ohio River, you can't do this, as Mr. White said, in 6 months. And these companies are going to look for the long term to see if this is going to be profitable 10 and 20 years from now and, of course, we're going to have the supply.

I want to make sure that—I mean, I guess what I'm interested in is what are we doing on the ground level now here in West Virginia to make sure that resource development into the chemical and manufacturing industry really is staying, you know, within our boundaries? I mean, not exclusively—and I understand we're in a region and all that kind of thing.

But I think that is exceedingly important, because when I go to Marshall County, and I go to the hairdresser, and I say to the woman who's doing my mother's hair—somebody might have heard me tell this story, but I said to her, "Wow. So do you have a well on your property?" You know, she lives out in the country. And she said, "Actually, we do." And I said, "Well, so are you going to Disney World?" You know, I'm thinking she's hitting the big mother lode. She's, you know, packing up and moving to somewhere else. And she said, "No, but I am going to buy new carpet for my house."

But, to me, that tells me that the person who's selling the carpet, the person who's installing the carpet, the person who's, you know, buying the truck that used for carting the carpet is—you know,

that's the economic development. I want to make sure that that's going to be in Marshall County, in Wetzel County, and the rest of the state.

So I'll give you an opportunity. And then the chemical—Mr. Kean might want to address the—how we know that chemical industry is going to come back. We know it looks good now. Is it going to look good in 10 or 20 years?

Mr. BURDETTE. Well, let me begin by saying that's exactly our purpose right now. West Virginia has always been an energy extractive State for a gazillion years, and we're blessed with huge resources and Marcellus being the latest. But Marcellus presents that unique opportunity to take a part of an extractive industry and create value-added opportunities for it.

It has been used—I specifically struck it from my remarks because everybody used “game changer.” But it certainly puts us in a position to replay the game, because West Virginia—the first major petrochemical plant ever built in this country was built in the Kanawha Valley by Union Carbide in 1927 on Blaine Island.

We have a long history in this. We know the value of it. We are comfortable with the industry. And our administration is focused extensively on how we build not just a plant, but the structure that encourages multiple opportunities to occur to the state.

You know, the chatter about a cracker is important. It's a big project. It's a big project in and of itself. But it really pales in comparison to the downstream opportunities that are attracted to it like a magnet, because it brings to the Northeast—West Virginia hopefully being the center—it brings to the Northeast low-cost feedstock, maybe some of the lowest-cost ethane-related feedstock in the world outside of the Persian Gulf.

It places that feedstock in close proximity to its markets, which it's never really been. It's always been close to the Gulf Coast or has been for 30 years. Our challenge is to not just to attract the anchors. It is to also work on building the infrastructure. Where is it stored? Can we create long-term stability in not the gas market, per se, but the ethane market, which will drive the chemical and plastics manufacturing industry?

So a lot of our focus right now is split in multiple directions. One, we need the anchors. We need the cracker. We want them all built in West Virginia. But the fact is if they're built in close proximity to us, we're going to benefit. We know that. Every other State, by the way, knows that. When Shell did its search, Congresswoman, all three sites they considered were within 50 miles of each other, 50 miles. Draw a circle of 75 miles and look at the impact zone for a facility like that.

So we draw the anchor. The next step is to make sure there is a strong enough pipeline network to transport that ethane across the region, that there are fractionators, separators and fractionators, in the network—largely being built now, quite frankly—and that we have developed a transportation system that gets those products out to the marketplace at a reasonable cost, and that there are storage opportunities that will help stabilize the market, make sure that it's always there.

Specifically, you know, we could have those discussions about where and what we're doing. But the bottom line is that's exactly

how we're looking at this. We believe that's where our focus has to be.

Mr. KEAN. Yes, I agree with everything you said, and I would simply add that another opportunity for West Virginia is in the export market. A lot of the incremental ethylene demand—production that will be built in the years to come will be converted into products that are exported all over the world. So West Virginia is well positioned to participate in that part of the market as well.

The CHAIRMAN. Don't take this personally. We've got to restrict, OK? The former president of the Senate was on a roll. And so what we've got to do is we're going to have 5 minutes, which includes both the question and the answer.

Mr. MCKINLEY. Yes, I do. I take it personally, yes.

[Laughter.]

Mr. MCKINLEY. I've heard you all carry on with this, but let me—I want to go back to the very beginning that said what the purpose is for this meeting, the transportation, pipeline, and rail needs to renew American manufacturing. I hope we spend more time getting manufacturing and where the jobs are. This is the jobs—how we're going to build this economy back. And we've gotten off game, I think, here a little bit on that.

So I want to go back to railroads. Next to barge traffic, that's the most economical way to transport products. We've ripped up a lot of our railroads in the Rails to Trails, which I, quite frankly, enjoy and appreciate that. But what can we do with the railroads? What can we do to help railroads? Because if we help railroads, then we're going to help manufacturing. Would you connect the two dots?

Mr. PIACENTE. I would connect the two. I mean, we do a very good job today of investing back in our own network and investing in our own resources—

Mr. MCKINLEY. But that doesn't mean that we'll get our—some more of our manufacturing. This thing—because we heard when we lost the cracker, it was rails, river, and roads. And I don't want to make the same mistake again, because Keith is right. There are going to be a second or a third cracker, and I don't want to miss it because of our rails.

What do we need to do from you—from the perspective of rails to help out so that we will, indeed, renew our American manufacturing?

Mr. PIACENTE. Well, I can tell you that during the Shell negotiation, you know, we competed vigorously, whether it was West Virginia or Pennsylvania or Ohio. We listened very carefully. We competed vigorously. It was a very tough negotiation. Hopefully, they will ultimately build. But for us, you know, giving good, fair contracts that offer stability very long term, that was in our best interest to do. So we think we did our part in trying to offer incentives to locate a cracker here in the Northeast.

Mr. MCKINLEY. Should we be trying to expand our rails again?

Mr. PIACENTE. That's tough to do in certain areas. Perhaps—I mean, what Mr. Donovan was talking about, the national gateway that helps intermodal traffic that would take product to import and export. I will tell you that regulations like positive train control don't help. We're having to make tradeoffs in our capital budget to

support a, you know, \$1.2 billion investment in the next 5 years on that technology versus, you know, making tradeoffs for other resources in our network. And we're going through those processes, you know, on an annual basis right now.

So, you know, regulations and legislation that encourage development are important. Those that don't—they hurt. They hurt substantially. It drives our capital costs up, and we have to make tradeoffs at certain points.

But in this area, particularly, in West Virginia, we think we're situated very well to expand business. Our network is in good shape. There are a few constrained points, but nothing that we don't think we can overcome. Building rail cars is a substantial investment for us. And to bring that traffic here to this State, we need rail cars for things like frack sand.

Mr. MCKINLEY. Do other states have the same issue? I'm told not, but I'd like to hear your perspective of it, of the captive rails that are down at Texas. There might be two or three rails nearby. And that was one of the reasons we understand that it was a drawback. We only had one rail in some locations.

Mr. PIACENTE. Well, the location they selected in Pennsylvania is a one-railroad served location.

Mr. MCKINLEY. I'm sorry?

Mr. PIACENTE. The location they selected in Pennsylvania is a one-railroad served location.

Mr. MCKINLEY. So if it's the same river that flows past West Virginia and it's the same railroad, it sounds like someone was trying to mislead us.

Mr. PIACENTE. I'm not sure I follow that.

Mr. MCKINLEY. They said the reason they didn't select West Virginia is rail, river, and roads, and it's the same river and it's the same rail. And our roads, thanks to Mattox and others, I think are pretty incredible. I want to make sure our people have jobs.

Mr. PIACENTE. I understand.

Mr. MCKINLEY. That's what we're here for—and the manufacturing jobs and construction jobs will stay here.

Mr. PIACENTE. And we have the same interest in West Virginia.

Mr. MCKINLEY. Thank you.

The CHAIRMAN. Good line of questioning.

Mr. Piacente, you know that I would not be at a hearing, publicly or privately, without discussing the Staggers Act. And Mr. Kean is just absolutely on the tip of his toes because the American Chemical Council supported us all the way along on that and still do. And that's the theory that if there's one rail going in, that rail can charge monopoly prices. And if there are two railroads going in, they've got to compete with each other, and because it's a free enterprise competition, the price comes down.

Now, you used a very interesting phrase just a moment ago when you were talking about working something out with somebody, and you talked about a discount. Now, discount says to me two things. One is that's good. But if it's discounted from something to something, that means that maybe the next one goes back up to where it used to be.

So my question to you is—and I'll go further on this. CSX—I remember John Snow 10 or 15 years ago when he was in my office

in the Senate, and I was going after him, as I have, you know, after railroads for 26 years in the Senate, 27, whatever it is—on the Staggers Act, that that is the way it's meant to be. There was a very compliant Surface Transportation Board, which it is now ICC, which is what it was then—always very compliant, always went along with the railroads.

That's a little less so. You have a very powerful lobby. But the point is that he was trying to get me to back off, and so he said, "Guess what"—and he and I were alone. We both wanted it that way. And he said, "I'll knock \$8 million off what I charge Weirton," which was at that point doing wonderfully. And so that was really good news. I wasn't going to say, "The hell you are. You're not going to do that." I said, "That's great."

But, you see, he then got up and walked out, and that was the deal. He placated me for the purpose—I have a huge—invested into Weirton Steel over 30 years, more than that, actually. And so that was the problem.

Then others, as they came in—chemical companies, in particular, came in to see me, and they would say, "Well, you know, he didn't offer us any discount, any lower rate." He decided what the rate was going to be, because under the Staggers Act, he shouldn't be able to do that, but he did do that, and they do do that. And because you're always under the radar in the American public—although I think the American Railroad Association is more powerful than the National Rifle Association. I really do. I mean, in effect, it was because it's always under the radar.

But my question to you is, are you—is this going to be a matter of discounts on a selective basis? Or where there's a single rail going in, which would seem to me to be the majority of the cases—I don't know, but that would seem to be—that you're going to have a specific policy which is constant, so you don't have to use the word "discount" because that means that you're discounting down from something up here, which sounds more permanent to me. Can you talk about that?

Mr. PIACENTE. Well, I would tell you that we compete vigorously for business. And whether the customer is looking to locate on a location that is only served by CSX or served by Norfolk Southern, for whatever reason—and there's many reasons they choose industrial sites—utility costs, labor, tax incentives, whatever they might be—we're in that hunt for that business just as well as our competitors. And so we offer prices to try and compete for that business to locate on our railroad.

The CHAIRMAN. But you're not competing in most—and I'm not talking about where there are dual railroads. I'm talking about where there's single railroads.

Mr. PIACENTE. I understand.

The CHAIRMAN. You're not competing.

Mr. PIACENTE. Well, we're competing to land that company—

The CHAIRMAN. The railroad is there.

Mr. PIACENTE. The railroad is there, but we're competing to locate them on that industrial site. They have choices, and they make those choices with a whole host of factors. We understood that freight component of that decision was not in their top tier—one, two, three, four, five—of that final decisionmaking process,

which told us we gave them a satisfactory package. As we've done with Dominion, as we've done with Caiman, as we've done with the coal companies, we've been landing to expand on our railroad. So we're offering packages to try and encourage them to spend their money on our railroad, where that, you know, industrial site is.

Now, as far as some of the products they ship, they may have an opportunity where they're apt to truck it over to an intermodal terminal, take advantage of containers going through export terminals in New Jersey or Pennsylvania. If they are shipping it in a covered hopper car, and they don't like our freight rates, we've given them competitive prices to try and connect to another railroad. They also have the opportunity to truck to a site that is served by our rail competitor that's very, very close by.

So there's multiple options that they use in trying to leverage us, in addition to other business that they have with us across the network. And again, I would go back to the fact that we've been very successful in landing new customers on our railroad here—\$550 million worth of investments last year on sites in West Virginia. We're very proud of that. It puts our employees to work as well.

The CHAIRMAN. I understand that. But you're also making a lot of money. I mean, you come in to the Commerce Committee, and you plead revenue inadequacy, and then we take out your annual report, and it knocks the socks off of everybody sitting around the table.

So, Mr. Kean, I just want to put you on the spot. I didn't entirely understand his answer. Did you?

Mr. KEAN. I have to confess that transportation policy is out of my element.

The CHAIRMAN. Oh, no, it's not.

[Laughter.]

Mr. KEAN. I'm really not versed in the issues, but I do know that our organization has had—has been by to see you a lot over the years on these issues. I'm not versed in it, though. I'm sorry.

The CHAIRMAN. All right. My thing says to stop, so I will. Congresswoman Capito?

Ms. CAPITO. Thank you.

I'd like to ask Mr. White and Mr. DeMarco a quick question. We've talked about shortages of CDL drivers, West Virginians, and I think it's a nationwide shortage, quite frankly. What other identified shortages do we have in our workforce now? We hear that we have 20,000 construction workers. Are there certain areas that we're lax in? And are any of the companies that are hiring—where are you having trouble finding folks to fill the jobs, and are you aggressively working with the educational institutions to see that we get a pipeline for the workers of the future in this business?

Mr. White?

Mr. WHITE. Sure. I would say right now, the pipeline skills are in high demand, and as we—

Ms. CAPITO. Welding? Welders and—

Mr. WHITE. Yes, welders and equipment operators and laborers who know how to work. Even if you're an equipment operator on a road, you're not necessarily suited for a pipeline. The terrain is very difficult, and it takes quite a while to get someone up to speed.

We do have a pretty robust network of apprenticeship programs. And I know—for instance, our laborers in Wheeling were just telling me they've got 140 apprentices, which is a pretty big number for one local, almost all because of the pipeline work. So we're trying to meet the challenge, but it is a challenge.

In our business, it's somewhat a tale of two cities, because you have high unemployment for the folks who have built a building like this, for instance, what we would call commercial construction, still is in the down—you know, in the doldrums, so to speak. And so it's hard to convert those folks over. So, you know, we have plenty of people who are ready, willing, and able. The pipeline right now, for us, is the short point.

Ms. CAPITO. Mr. Albert or Mr. DeMarco first, yes.

Mr. DEMARCO. Actually, we're doing several things right now. We've been working with community technical colleges in West Virginia for approximately 6 years now, maybe a little bit longer, identifying different skill sets that they can help us with. And those aren't extended training programs. Those are short-term—and when I say short-term, you know, 180 days maybe and we're trying to develop those things, and we have developed them on specific skill sets, so that individuals can take those in the evenings and on weekends and those kinds of things.

We've recently worked with the National Guard to identify people coming back from deployment, men and women coming back from deployment with certain skill sets. One of the big problems we've had is a lot of the people who we would use as adjunct professors in the community colleges, because of the skill sets they have, they're so high in demand it's hard to get their time to go in.

We'll use welders as an example. We looked for 2 years to find people who had retired from our industry who knew our welding skill sets and put them in a community college setting so they could teach welding. It was impossible to get somebody, because once these folks retired from XYZ company, they went to work the next day for ABC company.

But we were able to get some individuals who had general welding techniques. We were able to get them trained, so we're offering those programs now. It's been tough to ramp up. I mean, we're doing everything we can. We're doing some things with the K-12 program, trying to educate kids about the energy industry so that they don't see just the ducks with oil on them from the Exxon Valdez in the textbooks and ruin their thought processes about being able to come into this industry as a career.

Mr. WHITE. Could I follow up?

Ms. CAPITO. Sure.

Mr. WHITE. I can get you all the welders—we have all the welders you need. And sometimes I think that there's a disconnect, and maybe those of us in this room could do a better job communicating about where the skill shortage is missing and the demand, you know, is. And so sometimes I think we're—not intentionally, but we're working across—not talking.

Contracting—the same issue came up—I've got lots of contractors that I work with who are really looking for ways to get in on the bidding process. And I know I've talked to Scott Rotruck, and he's

very open to wanting to facilitate that, and I think that's the same desire here. But we just have to do more to find a better mechanism to get that fixed. And we don't want to be training—I'm sure more welding folks could be trained. But I want to make sure we're training in the right place and employing those who—I've got welders who are unemployed. So I'll talk to Corky afterwards.

Mr. ROTRUCK. Congresswoman, Mr. Albert earlier talked about 415 people at well sites from 150 disciplines. One of the key things about our industry is that drilling companies really only have a small amount of people internally working on that pad. Most of them are contractors. And it is a problem, as Steve said. So we have hired two people to work specifically on workforce development and vendor relations.

It is in our interest to cast the net as widely as we can for vendors, but it is hard. And one part is this work is so hard and so fast, a lot of times, once the folks find somebody that works for them, they don't want to re-bid. But we're pushing in that direction.

Also, Mr. DeMarco mentioned a facility. It was the Pierpont Community Technical College facility in Braxton, now in Upshur County. We contributed to that. I just checked in with them recently and hear that they are training a lot of people. So there is a lot going on from high school to vo-tech to community colleges and to Marshall University and WVU. We are really trying.

The last thing I would observe is this is really a regional play. Secretary Burdette mentioned that in terms of the benefits. We live so close to Pennsylvania and Ohio that a lot of times, those are not people from Oklahoma or Texas in those trucks—may have that license—it's somebody from this region, and they work back and forth across the border. That's just the nature of it.

The CHAIRMAN. Thank you.

I want to go to Corky, the infamous—or famous Corky. The GAO has put out a study which looks at gathering lines and larger lines and huge lines. And what they say is that there's a lack of data that exists concerning the construction quality and maintenance practices, locations and integrity of gathering pipelines. Those are the small ones. Those are what I'm particularly worried about right now.

According to GAO, without data on these risk factors, the pipeline safety officials are unable to assess and manage safety risks associated with these pipelines. So the question I would have for you is: What is the state—I mean, I've heard the word "mapping" used several times here. But the word "mapping" is kind of the benchmark, I think, from where you start because you don't know what you're running into, whether it's an aquifer or somebody's well or, you know, a buried septic tank or whatever it might be.

What is the state-of-the-art in West Virginia on knowledge about where present lines are, which would then have some bearing upon where future lines are? But that would, indeed, be a different discipline, because you would have to have mapping for places which do not have lines.

Mr. DEMARCO. Well, first of all, the pipeline safety is the responsibility of the Public Service Commission for non-FERC lines,

which are the non-interstate lines. So the Public Service Commission has that jurisdictional authority.

The CHAIRMAN. You see, to me, that's not an answer. I'm asking you a question. What we're talking about—

Mr. DEMARCO. I'm getting to your question.

The CHAIRMAN. OK.

Mr. DEMARCO. I just wanted to—you just said that—your comment was about who had the responsibility. They have the responsibility for pipeline safety. What we do is once we determine a line—if we want a line from Point A to Point B, then first of all we have to know whether we can get the right-of-way for that line. We might have to purchase some land or use somebody else's right-of-way if it's able to be used.

And then we actually have individuals who go out and they determine what's on those—within that right-of-way area, whether it's a wetlands, whether it's a rock formation that's going to be impossible to get through or highly uneconomical to try to cut through it. These individuals do those kinds of things. There's a lot of precursor work that goes into it, and then we start to develop the pipeline.

You know, we used to share a lot of these things that now are more secretive after 9/11. You used to be able to get on the Internet and be able to find, generally, where a pipeline is. We're pretty restrictive about sharing those kinds of things. We share it within companies, but not—

The CHAIRMAN. Restricted by whom?

Mr. DEMARCO. Pardon me?

The CHAIRMAN. Restricted by whom?

Mr. DEMARCO. By the companies who own the infrastructure.

The CHAIRMAN. Well, that sounds to me like a practice which ought to come to a rapid end. You know, that's what we're doing in cybersecurity with information sharing, and companies are going to have to and are gradually coming to understand that they have to share their much more complex patent information with each other and with the government in order to protect cyber attacks.

Mr. DEMARCO. And, Senator, I think we do share those with Homeland Security, and we do share those within the industry. So Scott's company would know where the CONSOL pipeline might be and then makes—and in a lot of cases, share right-of-ways for those pipelines. I mean, we try to do that as much as we possibly can, so that you don't have to build across lines. And if we can get into a right-of-way, the Department of Highways' right-of-way, another company's right-of-way, an AEP right-of-way, then we try to negotiate to be able to put our pipelines in those right-of-ways.

The CHAIRMAN. It still wasn't an answer, because that has to be—to work, you have to deal with all previous feeder pipelines, right? And that might be Chesapeake. That might be Dominion. That might be CONSOL. That might be anybody. But it doesn't really work if it's just some. So do you, in fact, share with all of those who do pipeline construction in West Virginia, or have done?

Mr. DEMARCO. If we know we're going to be in their area, yes, we do. Yes, we do.

The CHAIRMAN. And then how do you know—if the GAO says that they don't have the data for this, how do you know that you

have the accurate information about where they have put them in before—pipelines, which they may or may not be now using.

Mr. DEMARCO. Well, a lot of the pipelines are marked with right-of-way. And if they're not marked—

The CHAIRMAN. You mean, a marked—

Mr. DEMARCO.—we would call around to the various companies and say, “Do you have pipelines?” The other thing that we also use is our—what's the utility—

Mr. ROTRUCK. Miss Utility.

Mr. DEMARCO. Miss Utility. We have to report all of our pipelines to Miss Utility. So Miss Utility is contacted when we're going to put a pipeline in to see if they are aware of other pipelines within a particular region that we want to put our infrastructure through.

The CHAIRMAN. OK. I'm over.

Mr. MCKINLEY. You took my spot.

The CHAIRMAN. I took your spot? Good for me.

Mr. MCKINLEY. The Chairman has his privileges to be able to do that.

Ms. CAPITO. It's your hearing.

Mr. MCKINLEY. Let me try it again back on manufacturing, because I thought that's why we were here. I'd like to understand, Scott, on the—with gas, we all know that the price of gas has dropped pretty precipitously now down to \$2 and maybe 8 cents an MCF and dropping.

Mr. ROTRUCK. Yes, sir.

Mr. MCKINLEY. We've got gasoline price that's going to hit \$5 a gallon, likely, this summer. In terms of manufacturing and how can we use the shale gas development in manufacturing, can you give us some ideas? I think you all with Chesapeake are trying to do some things with compressed natural gas vehicles. I would think that we have an opportunity for manufacturing here in West Virginia. I know there's some efforts down in Charleston about that. So can you elaborate a little bit about some of the natural gas vehicles and other things we can do with natural gas?

Mr. ROTRUCK. Yes, sir, Congressman. To go back in my history a bit, I used to work for a defense contractor, Hercules Aerospace, and we had a private part of that company called Herpel. And we were going to use the five-axis winding technology of Kevlar then to make irregularly configured natural gas tanks for conversion vehicles. Oil went to \$8 a barrel, and the deal was done.

I think now you've got a lot longer horizon to that. In fact, we are taking a billion dollars of cap-ex over the next 10 years, really front-end loading it, and putting—we've already put \$150 million toward Boone Pickens' Clean Energy company, and we're putting \$155 million in Sun Drop Fuels. And that is an interesting deal. That is going to have a cellulosic-based ethanol with a natural gas to liquid combined to make a green gasoline, which we could use in current in filling infrastructure.

We also are converting our entire fleet to natural gas, and we're trying to build a transportation network. The beautiful thing about natural gas vehicles is that one State doesn't have to compete with another. The best thing that can happen is for all the states to

build the network. So we're putting money at that right now. And you're right. The price of it will continue to be very low.

Mr. MCKINLEY. What do you think the—well, I know Congressman Sullivan has some legislation there to do it, but it calls for some pretty heavy subsidies. I'd just assume we could strike subsidies from all of our processes like this. But, nevertheless, what do you think your cost—what would it cost converting that or comparing that to gasoline? What do you think you're going to be looking toward?

Mr. ROTRUCK. Well, as you just observed, it went down—that ratio is going to be very good. It's probably \$1.20, between \$1.20 and \$1.40 gasoline per gallon equivalent. So you're going to be able to fuel for a very low cost.

Mr. MCKINLEY. What kind of range would that allow?

Mr. ROTRUCK. It depends on how large the gas tank was that you put on it. The real key here—and this is starting to happen—is to get originally manufactured natural gas vehicles, because they're optimized for efficiency. And I know you, being one of two engineers in Congress, understand that.

But there is a good story unfolding here about natural gas vehicles. That's the beauty of our fuel. It is so extremely flexible. We can use it in so many ways.

Mr. MCKINLEY. Do you see a role for us in West Virginia for manufacturing where we can use this gas in a way? Do you think there's something here other than producing it and shipping it—

Mr. ROTRUCK. Oh, absolutely. In fact, that's the beautiful thing, Congressman. We have the nicest slice of the Marcellus. We have the wet gas in the northern panhandle, a little bit into Pennsylvania. But we have the best slice of this. People are moving capital and rigs from the dry gas areas into the wet gas areas. This is very bullish.

One other thing I'd like to observe in that regard in how we can benefit from this as a state right now, we have literally spent hundreds of millions of dollars in the northern panhandle with paying bonuses for leases. And unlike the history of southern West Virginia, Senator, where it was out-of-state land holding companies that own the mineral, these minerals are owned by people who live there, and that money is there now. We need to figure out a way to capture that money and redeploy it and reinvest it in the community.

These are angel investors, Senator, truly statutorily angel investors. That's the good story. We've got to—this is the only place in the world, except maybe Quebec, where an individual can own their minerals. The rest of the world the sovereign owns the minerals. So that's how we can benefit.

In your area, I was on a radio show up there recently, and I was telling the guy that, that that's a—and his eyes just lit up. We're not thinking about that. That money is already there. We need to capture it before it gets to Florida.

Mr. MCKINLEY. Thank you very much.

Ms. CAPITO. Well, I'm going to say something that's probably going to create a lot of relief. I don't actually have another question. I just want to thank the Senator and all of the participants today and the audience. I want to do whatever I can do to help.

I think we all work very well together, because we know, as the Senator has said more than several times, it's all about what's good for West Virginia and the people here. And that's the most important thing. So I appreciate the opportunity.

Thank you.

The CHAIRMAN. Thank you, Congresswoman. Do we all have to abide by—

Ms. CAPITO. No. You're in charge.

[Laughter.]

The CHAIRMAN. All right. I want to ask sort of a—just a pop thing to you, Secretary Mattox. All of our bridges—I don't mean the ones that go across the Ohio River, but the ones that go over such and such a creek, all throughout rural West Virginia and elsewhere. What percentage of them were built 40 years ago or more, approximately?

Mr. MATTOX. Senator, about half of our bridges are about 50 years old. And of all of our bridges, which numbers about 6,850 statewide, about 37 percent of them are either structurally obsolete or geometrically functionally obsolete.

The CHAIRMAN. And so then if your 120,000-pound truck—a lot of those—I remember a bunch of them in Pocahontas County are one way. So I'll just leave that question on the table. I won't ask you to answer it. But it's an interesting concept of 120,000 pounds getting over one of those things.

Mr. KEAN. I didn't want to get that wrong. Do something difficult for me here. Take this discussion—we all want to see this thing work. We all want to see it work.

Thank you very much, Congresswoman Capito.

Ms. CAPITO. I'm coming back.

The CHAIRMAN. You are. OK.

Ms. CAPITO. But thanks for drawing attention—

[Laughter.]

The CHAIRMAN. I love it. I love it. OK.

Now we have a somber moment here. Following on what Dave has been pushing at, which I needed to be pushing at more, and that is how does what's happening in this Marcellus Shale boom, which, if done properly and if we ask some of the questions that we're asking this morning, which appear to be hostile, but which, in fact, are trying to get a positive result so that the people in this State can be well treated and well served by the process, not just in the long term, but in the short term, which is what a lot of people have to deal with.

Take me through the process, as if I were in the second grade, of going from what's going on now and then how that goes into—helps the chemical industry. And how does that happen, step by step, so that you can then produce the so-called 98 percent of all products that have some aspect of that in it?

Mr. KEAN. Right. So, as you know, we use natural gas as our principal source of heat and power. We also use some natural gas as a feedstock to make ammonia and methanol and hydrogen. But most of our feedstock is in the natural gas liquids, and ethane is the dominant source of natural gas liquids.

And the prize here is to be able to monetize this enormous supply of ethane that we think is here in the Marcellus. And that

means creating infrastructure that can let the ethane get to market, and that just improves the economics of the entire natural gas supply chain, because rather than just selling the natural gas, a well is able to monetize the natural gas, the ethane, the propane, the butane. So it makes the economics of creating these—you know, developing these wells, the wet gas wells, very attractive.

And so that process will continue to build out, and then downstream, we will continue to have a competitively advantaged feedstock that will enable us to expand our investment in ethylene and other propylene—petrochemical derivatives and export a high percentage of those products, because we are able to sell our products in Asia and Europe and South America at a better value than other competitors can.

So it's kind of like virtuous circle, where, you know, you can—as you develop the wet shale, and you're able to monetize the full value of the well, that brings more raw material online for industries like ours. It makes the people on the domestic side that we sell to—the fabricators—it gives them a more competitive position, so then you see more exports of fabricated parts, be they auto parts or thousands—98 percent of all the other stuff. That expands their export opportunities.

Our export opportunities expand. The producers are getting a good return on investment, and it just seems to cycle, you know. In our view, it would just continue to cycle up.

The CHAIRMAN. All right. I think you and I will need to talk more about that. I'm really interested in how one step leads to another, because manufacturing is, on a down-the-road basis, what we need to be talking about for all of us.

Mr. KEAN. And, by the way, let me just add that there's some, you know, recent articles that Caterpillar, for instance, is going great guns right now and is investing in new plant and equipment, because they're getting—you know, they're sold out on some of their heavy moving equipment and excavators and the like that are in large measure being used in oil and gas development. So there's lots of rippling. You've heard about the steel industry and how they're investing and expanding, given the high degree of orders for their products.

So, I mean, there's a lot of synergy that is taking shape. And this particular region of the country is almost uniquely equipped to take advantage of it, because of this enormous deposit of ethane rich natural gas.

Mr. MCKINLEY. You can't build an economy and the strength of manufacturing without a good highway system, obviously, and we talked about rails, and we talked about the river. And we have before us, as you know, is the highway funding, and there seems to be a conflict or a difference of opinion between the Senate with a 2-year plan and the House with a 5-year plan.

So, Mr. Secretary, you've been in my office. You've talked about it. You were going to think back. There's pros and cons to both ways for transportation. How would you mitigate the differences between the House bill and the Senate bill so that we can get a plan and put our people—

Ms. CAPITO. That's an easy question.

The CHAIRMAN. Don't even try.

Mr. MCKINLEY.—in the construction industry back to work? Because we've got too many people unemployed, and we understand how that's going to affect manufacturing. But I'm interested—just ignore his remark there, because some of us are looking at that 5-year plan just as well. So you know and I know that construction has 45 years in it, and if I have a 5-year plan, I know how to plan for construction. Two-year is a limitation with it.

But how would you mitigate the difference between the two of them? You've read—because I know you've read both of them. You've talked about both of them.

Mr. MATTOX. I have, and I like the policy in the Senate bill quite a bit. I like that—the funding mechanism was what's really bothersome with the House side of the bill. Although it's a 5-year bill on the House side, it means a cut of around \$91 million per year for a total of \$455 million over the 5-year life of the bill to West Virginia.

Currently, we receive somewhere in the neighborhood of \$425 million per year for Federal highway—

Mr. MCKINLEY. How do we mitigate that? How do we get so we've got a bipartisan approach? We meet and occasionally get together, and we want to continue that. So we have a bipartisan—but right now, it's either going to get stuck in the House or it's going to get stuck on the Senate side. So I'm trying to find out what do we need to do to help our transportation? How do we mitigate the difference?

Mr. MATTOX. At this point in time, I would be happy with the 2-year bill with current funding levels to get us through—

Mr. MCKINLEY. That's not going to pass the House. So that's what I'm saying. What do we do to change the Senate's program so that we've got something we can pass and put our construction workers back to work?

Mr. MATTOX. On the House side, we need to find a way to put more money into the highway program. You're exactly correct. These are American projects, American jobs. It's going to provide employment immediately. We have projects sitting on the shelf, ready to go. We just need the funding to get those projects off the shelf.

Mr. MCKINLEY. So you're saying to make the difference between the House and Senate is to put more money in the House bill and you'd like it?

Mr. MATTOX. We'd love it.

Mr. MCKINLEY. How much money would you need?

Mr. MATTOX. As much as you can send. I think we can spend it. [Laughter.]

Mr. MCKINLEY. Well, that's unclear, but we'll take that message back to try to figure out what it is—

Mr. MATTOX. In previous bills—

Mr. MCKINLEY. If I can get you a couple of extra bucks, then that would make you happy?

Mr. MATTOX. In previous bills—and we're looking at about a 20-year history now. Every new long-range bill, and I'm talking a 6-year bill or thereabouts, there's been an increase of about 30 percent for the State of West Virginia since the early 1990s with the original ISTEA legislation. In every 6-year highway bill that's come

out since then, West Virginia has received about a 30 percent increase in their Federal funding levels. I would be as happy as can be if we could get another 6-year highway bill with a 30 percent Federal increase.

Mr. MCKINLEY. If we had to eliminate—I've got a minute left of time here before he yells at me again. But if we eliminated fly ash out of our concrete—and we know that that would increase the cost of construction—what kind of damage would that do to West Virginia, if we can't use fly ash in our concrete? The writers of the report says it costs \$110 billion across the country. So I'm curious what effect that would be in West Virginia.

Mr. MATTOX. Usually, in West Virginia, you can take the big number nationally, and about 1 percent is generally attributable toward the effect it would have on West Virginia.

Mr. MCKINLEY. So that could be a billion dollars, then, over a 10-year plan.

Mr. MATTOX. Over a 10-year plan for—

Mr. MCKINLEY. Without being able to use—so I know the House is talking about trying to amend the fly ash. And the Senators that co-sponsor in the Senate, we weren't able to get—they weren't able to get it in the Senate, but we'll do it in the House. And, hopefully, that'll save us some money so we can pave more roads and build more bridges.

Mr. MATTOX. We have utilized fly ash successfully in road bed stabilization as well as concrete for a number of years.

Mr. MCKINLEY. Thank you.

The CHAIRMAN. Thank you, Congressman McKinley.

I am required by my God and my soul to make an uncomfortable statement. The House transportation bill—it's not a question of money. It's a question of safety, of standards, of training, of standards of, you know, the hours—the number of hours of sleep, just like we did in the FAA, Federal aviation bill, for people who drive school buses, who drive trucks, who drive, you know, everything. There's a lot in that bill beyond the amount of money.

But the nasty thing that I want to say—and I may have to call the hearing over because if both of these two people attack me at the same time, I'll need help. And, Ms. Faraca, I'm counting on you to come over and help me. And that is that the Republican Secretary of Transportation has said that the House bill is the worst transportation bill he has ever seen in his career. So that's why I think you'll do well not to try to mitigate between the two.

All right. Well, I'm so pleased with that that I'm quite ready to have—

Mr. MCKINLEY. Nothing like making it partisan.

[Laughter.]

The CHAIRMAN. No, no. You can call it partisan, but you can also say it's policy, because when you pass a bill, it's policy. And you have to look at the bill in terms of policy, and the policy in the House bill, to me, you know, and, more importantly, to the Secretary, is difficult.

Let me conclude my questions—and I've got a quick closing statement—to you, Steve White, Mr. White. You have been, I think, clinical, analytical, and restrained today. And that has not nec-

essarily comported with previous conversations that you and I have had about the subject of hiring West Virginia workers.

Now, a statement was made by—I guess it was CONSOL—yes, we hire West Virginia workers, but in the sheriff's—for driving, but that's not your deal. But you have a lot of other things that are your deal. The sheriff indicated that the attitude of these—what he said—subcontractors mostly out-of-state—that they have real disdain for West Virginia.

I believe you had that in there. And I'm not putting you on the spot. I'm just—this is—you've written it down, OK, part of public record. And that they—you know, they're tired. They say, "Well, we're going to get fined. Fine. We'll get fined. We'll pay the fine, and we'll go ahead and do what we're doing."

That is symbolic—and I assume that is true—of sort of the attitude about West Virginia workers, which makes me very angry. I mean, if you look at the West Virginia coal miner, you find one person on the face of the earth who works harder than the coal miner. You find one person who is up against it more than some of the people you represent, because who's going to do construction? You know, you're always operating in a climate of such total uncertainty.

I'd like to have you sum up your feeling about the role of people in this public policy discussion that we're having. We know that there's going to be—this Marcellus Shale thing is going to follow through in a way which is good for West Virginia, or rather we hope it is. We know it's going to be good for the companies. What we want to be sure is, is it going to be good for people of West Virginia, because it's just like—you know, corporations aren't people. People are people. And so I'd like you to just—I'm handing you a gift, so make good use of it.

Mr. WHITE. Thank you, Senator. You made a lot of the remarks I'd like to make. I guess I'd say, again, that there's an opportunity but no guarantee. You've heard of the term "the curse of oil," where countries discovered oil in other parts of the world, and it's turned into a curse, not a benefit.

So there's not a guarantee that the Marcellus Shale will be the great benefit that we all hope that it will be. But the opportunity is there, and that's why it takes more than the invisible hand of the market to make sure that people benefit. It takes the involvement of all the parties.

So I can tell you anybody who's from up in the region can see the out-of-state invasion, I call it. I don't know if that's how the sheriff referred to it. Folks who are far from home, and they're here to work, and we never fault anybody who wants to work. But we have local people who are unemployed who have the skills to do those very same jobs and want to work. So we have a real mismatch, and it is very upsetting with such high unemployment that the citizens of West Virginia who are sitting on top of the greatest natural resource find perhaps of the century have to watch the jobs that they want to do go to others.

So it's very upsetting. I can't say enough about it. And we have the skill sets to do the jobs, and we have the people. You can't train a welder in 6 weeks. It takes us 5 years, and they're the best welders.

And the companies that have come and first started on the pipeline—and I told you they were doing so well, because they brought in the folks from Texas who said they could do it for cheaper, and they failed miserably, because they couldn't handle the terrain. They didn't know the roads. They didn't have the expertise that our folks have.

Hardworking people—I'm not faulting. I just think that there's many opportunities, but we're going to let it slip through our fingers to maximize it if we don't do more to capitalize it. And I want to also emphasize that we really are positive about this, not just the extraction part—the manufacturing part, the downstream part. I think the lynchpin is the cracker. Without the cracker, you're just a resource island that is shipping resources away.

And I give the Governor and Secretary Burdette credit. I know—they kept us involved. They worked tirelessly, and we're excited about Shell building something within 10 miles of our border, because our competitor is the Gulf Coast or overseas, and that is the real challenge that we face.

We have to find a way to pull together as a region. It's a regional approach. If a construction worker goes across the border and will travel to work, that's fine, as long as we get to stay in the region. But if we don't work together, and we allow the resource to get siphoned off—and there's plenty of people who want it—that value added—it's like cutting the trees and sending them overseas. You don't process it. You don't have a lumber yard. You don't have furniture. That's the component to your question about manufacturing is that cracker, and the cracker is just the start.

So I credit the Governor and I credit Secretary Burdette, and I feel comfortable and confident that they're going to land the first one that's going to get built. And whatever we do, what might starve us from that is the ethane deals which are going to have to be made at some point to export that ethane before that deal can be consummated.

So that's why I say—and anything in terms of the transportation, the exporting of the natural resources—we need to go slow and have a little patience, because then we can catch up locally and have a robust economy that will be not just for construction, but for manufacturing and for the extraction side. The gangbusters going on is the way the industry is geared to go. But we have to perhaps slow it down a little bit.

I'm just here to tell you that the local workers are here, ready, willing, and able to work. Opportunities are not as much as they really need to be. And I think you can put some pressure on, and I think—I've definitely seen situations where people say, "You are going to hire local." That is what we want, and that is what happens, period.

The CHAIRMAN. I thank you very much.

I thank all of you very much for this. Understand always that a hearing in Congress is to probe the soft underbelly. It's not to criminalize or be petulant. Sometimes it seems that way. But it's to try and get out in front of us what it is that we have to work on and what it is that we're not doing, as well as what we're doing.

And we have, in the end, not only a responsibility to those who are taking this risk financially, but we have a responsibility to the people who we represent. And that is a very solemn responsibility. Thank you all, and the hearing is adjourned.
[Whereupon, at 3:26 p.m., the hearing was adjourned.]

