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Quadrennial Energy Review 08-08-2014

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QUADRENNIAL ENERGY REVIEW

Infrastructure Constraints

Friday, August 8, 2014

Bismarck, North Dakota

Bismarck State College

National Energy Center of Excellence

Bavendick Stateroom (No. 415)

1200 Schafer Street

Bismarck, North Dakota 58506

Reported by: Roger Meyers,  
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1 A P P E A R A N C E S

2 Dave Clark, Interim President, Bismarck State  
College

3 Steve Shepherd, CTE Coordinator,  
4 United Tribes Technical College

5 Ron Ness, President, North Dakota Petroleum  
Council

6 Pamela Trhlik Lin, Chairperson,  
7 McLean County Board of Commissioners

8 Brad Hawk, Indian Health Systems Administrator,  
North Dakota Indian Affairs Commission

9 The Honorable Jack Dalrymple, North Dakota  
10 Governor

11 The Honorable Anthony Foxx,  
Secretary of Transportation

12 Dr. John P. Holdren, Assistant to the President  
13 for Science and Technology

14 Janice M. Schneider, Assistant Secretary of the  
Interior for Land and Minerals Management

15 The Honorable Kevin Cramer,  
16 United States House of Representatives

17 The Honorable Heidi Heitkamp, United States Senate

18 The Honorable John Hoeven, United States Senate

19 The Honorable Ernest Moniz, Secretary of Energy

20 Matt Rose, Executive Chairman, BNSF

21 Robert Steede, Director, Enbridge, North Dakota

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- 1                   A P P E A R A N C E S Cont.
- 2   Mindi Schmitz, Government Relations Specialist,  
3   Environmental Law and Policy Center
- 4   George Boyajian, Vice President of Business  
5   Development, Primus Green Energy
- 6   Mike Eggl, Basin Electric, Senior Vice President,  
7   Communications & Administration
- 8   Mike Turner, Senior Vice President, Hess  
9   Corporation
- 10   Brian Kalk, Chairman, North Dakota Public Service  
11   Commission
- 12   Claire Vigesaa, General Manager of the Upper  
13   Missouri Power Cooperative
- 14   David L. Goodin, President and Chief Executive  
15   Officer, MDU Resources Group, Inc.
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1 P R O C E E D I N G S

2 MODERATOR KELLEY: Okay. Good morning,  
3 everyone. I'd like to welcome those of you here  
4 in the room to the Quadrennial Energy Review  
5 Public Meeting in Bismarck, North Dakota, at the  
6 beautiful Bismarck State College.

7 I'd also like to welcome those of you  
8 who are joining us via livestream on the web. My  
9 name is Chris Kelley from Energetics. We're a  
10 support contractor for the Department of Energy's  
11 QER efforts. I have the distinct honor of being  
12 the facilitator for today's meeting.

13 We'll be hearing from a number of  
14 speakers today. But before we get started, I'd  
15 like to refer to a few housekeeping notes.

16 First, the QER Task Force welcomes  
17 comments from the public. If you wish to make a  
18 comment and haven't signed up yet, please do so at  
19 the front entrance.

20 And for those of us -- or those of you  
21 who are joining us via livestreaming, please email  
22 your comments to QERcomments@hq.doe.gov.

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1           We have an outstanding set of speakers  
2 here today. Their comments and presentations will  
3 be found after today's session at  
4 [www.energy.gov/qer](http://www.energy.gov/qer).

5           Before we get started, I'd like to read  
6 a short statement about the purpose of today's  
7 meeting. Pursuant to the Federal Advisory  
8 Committee Act, the purpose of today's meeting is  
9 to ask for your individual input, or your  
10 organization's input, regarding infrastructure  
11 constraints and provide the forum to exchange  
12 information.

13           To that end, it would be most helpful to  
14 us for you to provide these recommendations and  
15 information based on your personal experience,  
16 your individual advice, information or facts  
17 regarding this topic. The object of this session  
18 is not to obtain any group position or consensus.  
19 Rather, the U.S. Department of Energy is keeping  
20 as many recommendations as possible from all  
21 individuals in this meeting.

22           A few other notes. I see most folks

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1 have made their way over to this side of the room.  
2 We'd like you to keep those tables open for lunch  
3 later today. And if you haven't already seen it,  
4 there's a note out in the lobby with the login for  
5 the wireless if you care to connect to the  
6 wireless here. It's "BSCGuest" and the password  
7 is on the note at the front that you can get.

8           So with that, allow me to introduce Matt  
9 McGovern, the Senior Advisor, Office of the Deputy  
10 Director for state, local, and tribal cooperation,  
11 energy policy and systems analysis. Mr. McGovern  
12 will introduce our first speaker.

13           Matt.

14           MR. MCGOVERN: Thanks, Chris.

15           Good morning, everyone. And thank you  
16 all for coming. Glad you could come to this 9th  
17 meeting of the Quadrennial Energy Review. The  
18 public input is very important to this process.  
19 So I want to thank you all for coming out today.

20           The QER, or Quadrennial Energy Review,  
21 is one of the most important energy initiatives  
22 coming out of the White House right now. The

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1 President has directed the Administration to  
2 conduct a Quadrennial Energy Review, which is the  
3 first time it's ever been done. And this year,  
4 the focus will be on infrastructure for  
5 transmission, storage, and distribution of energy.

6           And this is going to end up being a  
7 strategic document that will have recommendations  
8 for energy policy to deal with our 21st century  
9 energy challenges and improve on our  
10 infrastructure to enhance our energy and climate  
11 security looking ahead at the year 2030. It's  
12 going to identify recommendations for policy in  
13 all aspects of energy. You're going to hear a lot  
14 more about that today.

15           Our first panel, we're going hear about  
16 workforce you see here in the Bakken, which, as  
17 you all know, is incredibly important. And then  
18 we'll have several elected and cabinet, which is  
19 this afternoon, followed by two more extra panels  
20 to really get into details on infrastructure in  
21 the Bakken. And I'm really glad to be here today  
22 for this North Dakota meeting.

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1 I've spent most of the last decade  
2 living in South Dakota before I moved to  
3 Washington last year. So coming to North Dakota  
4 is a little bit -- it's almost like coming back  
5 home -- not quite the same. But, you know, people  
6 are very friendly here. It's not 100 degrees all  
7 the time. I've already been to Taco John's once,  
8 so -- can't get that in Washington. So I'm really  
9 glad to be here.

10 And I'm especially honored to be able to  
11 introduce our first speaker here today. As many  
12 of you know, Senator Heitkamp made history when  
13 she became the first woman elected to the Senate  
14 in North Dakota in 2012. She served as the  
15 Attorney General for the State of North Dakota  
16 from 1993 to 2001. She grew up in Mantador, North  
17 Dakota, which, from what I hear, is a small enough  
18 town you could probably fit everybody who lives  
19 there in this room. And so we're glad to have her  
20 here today.

21 She's got a really strong background in  
22 energy. She served for seven years as a director

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1 of the Dakota Gasification Synfuels Plant. In the  
2 Senate, she's worked to promote a all-of-the-above  
3 energy strategy for North Dakota and is known as  
4 having a really strong interest in North Dakota  
5 energy issues. She also served on the Ag  
6 Committee, the Indian Affairs committee, the  
7 Banking Committee, the Homeland Security and  
8 Governmental Affairs Committee, and the Committee  
9 on Small Business and Entrepreneurship.

10 We're also really grateful to Senator  
11 Heitkamp's staff for helping us make this meeting  
12 a success and helping us organize a lot of the  
13 details that go into putting a meeting like this  
14 together.

15 So we're happy to have Senator Heitkamp  
16 here today and (inaudible) with issues  
17 (inaudible).

18 SENATOR HEITKAMP: Thank you.

19 (Applause.)

20 SENATOR HEITKAMP: We're going to make  
21 this my whole day.

22 Thank you so much for attending. And I

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1 know a lot of you have braved some road  
2 construction out there. And so it's great to see  
3 so many faces here. When the President announced  
4 this initiative and they listed the locations  
5 where they were going to be doing the public  
6 meetings, North Dakota wasn't on the list. And I  
7 just don't know where you can go to get any more a  
8 rich environment of all-of-the-above energy  
9 policies than the State of North Dakota. We do it  
10 all here from biofuels and wind and even I -- we  
11 were in Valley City looking at some solar panels -  
12 - to all the way over to the other side as people  
13 look at the spectrum of energy, fossil fuels,  
14 (inaudible) coal, gas generation.

15           We've got oil and gas development. In  
16 fact, we quickly have become the number two state  
17 in the country for oil and gas production. And  
18 it's interesting because when people talk about  
19 oil shale or people talk about shale development,  
20 they always say, "North Dakota is where you got  
21 that gas shale." I say, "No. We do oil in North  
22 Dakota." We're trying to figure out what to do

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1 with our associative gas.

2           And so this is a wonderful opportunity  
3 not only for you in the audience to participate,  
4 but also for everybody who is watching this being  
5 streamed and who can, in fact, tell the great  
6 North Dakota story and how it is that the most  
7 critical thing that we can do for North Dakota  
8 energy, in my opinion, is: number one, don't mess  
9 it up; but, number two, figure out how we're going  
10 to move energy. It's one of the great challenges  
11 that we have.

12           And so I want to start off by thanking  
13 Dave Clark, somebody I've known for a lot of years  
14 -- we just get old together, Dave -- for hosting  
15 this event. It is always -- it is always an honor  
16 to show off this room, to show off our valley, and  
17 to really talk about how this building was built  
18 with a great collaborative effort between energy  
19 and our state -- and the State of North Dakota and  
20 the great foundation here at the college. And so,  
21 thank you so much. And I don't know if Larry's  
22 out there, Larry Schulken (ph), but -- there he

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1 is. Larry, thank you so much for the university  
2 hosting us and providing this forum.

3 I also want to thank Senator Moniz for  
4 taking up the challenge that we issued, where we  
5 said, "You ought to come to North Dakota." And  
6 Secretary -- he and Secretary Foxx will be on the  
7 ground; and I think they will find this -- my  
8 prediction -- one of the most interesting places  
9 that they go in this review.

10 And so when -- I want to just do a quick  
11 review of, kind of, where we are right now with  
12 workforce. I mean, if you look at the challenges,  
13 other than transportation, and a lot of those  
14 challenges are related to workforce. What I hope  
15 to western North Dakota, and we were begging a lot  
16 for increased infrastructure and that includes the  
17 airport, right? Roads getting to the new airport  
18 and (inaudible) and so we know that this is real  
19 and that we need to continue to build up that  
20 infrastructure.

21 And I've toured those airports quite a  
22 bit. So we bring all the -- I let the people who

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1 know what they're doing actually walk around. And  
2 what I do is I walk around the waiting room at the  
3 airport and introduce myself and say, "Where you  
4 from?" And they'll say, "I'm from Louisiana."  
5 Well, "What you doing?" "I just have a two-week  
6 study for a representation. I've spent, you know,  
7 three weeks driving the truck and flying home." I  
8 said, "(inaudible)." "No, ma'am, we're not."

9           And I go to construction sites, and I  
10 look up on the -- on the, you know, (inaudible)  
11 site. I call out to them; I say, "Where you all  
12 from?" And they'll say they're from Idaho or  
13 they're from Utah. And I say, "Are you building  
14 this house for your family to bring your family  
15 into North Dakota?" "No, ma'am, we're not."

16           And so I think that we know we have some  
17 very serious challenges in terms of workforce  
18 development. But we have a lot of folks who want  
19 to work and a lot of folks that we did I think a  
20 better job talking to young people about what  
21 their opportunities are. I think that we could go  
22 a long way to developing that workforce that we

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1 need, which -- good, high-paying jobs.

2           But right now, the folks at Job Service  
3 have 27,000 jobs in North Dakota that they are  
4 trying to fill. And that's just people who have  
5 asked Job Service for that help. And you think  
6 about that. People say, "Well, you have low  
7 employment." I say, "We have zero unemployment,  
8 we're underemployed."

9           And so what we need to do is, I think,  
10 be very strategic. But we need to build that  
11 workforce at home. And so we need to do a better  
12 job educating our kids from a very young age about  
13 what those opportunities are going to be and how  
14 we can provide a good living for their families  
15 right here. And we're seeing that already, but we  
16 need to do a better job.

17           And so it's only appropriate, I think,  
18 that our first panel, Chris, is looking at the  
19 development of the workforce. I think that our  
20 great colleges and universities are all playing a  
21 role. But we need to get this down to a place  
22 where we can educate people very early on in their

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1 lives what those opportunities are going to be.

2 I look forward to being with you for the  
3 rest of the day. I think this is great. I see so  
4 many friends and builders of our state out in the  
5 audience. And I really ask you to participate  
6 fully in this opportunity because we want to make  
7 sure that we are developing the right policies in  
8 Washington D.C., that (inaudible) predictability  
9 to continue to make the investments that we need  
10 in the great State of North Dakota.

11 Thanks so much. Thanks so much.

12 MODERATOR KELLEY: Thank you.

13 (Applause.)

14 MODERATOR KELLEY: So, with that, we're  
15 going to go ahead and jump right into our first  
16 panel. We've got a great set of panelists here  
17 today to discuss Bakken workforce development.

18 Today, we have Dave Clark, the Interim  
19 President of Bismarck State College.

20 Steve Shepherd, CTE Coordinator, United  
21 Tribes Technical College.

22 Ron Ness, President of North Dakota

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1 Petroleum Council.

2 Pamela Link, Chairperson, McLean County  
3 Board of Commissioners.

4 Brad Hawk, Indian Health Systems  
5 Administrator, North Dakota Indian Affairs  
6 Commission.

7 Each of our speakers is going to provide  
8 five to seven minutes of comments. We'll go right  
9 down the list here. Everyone will provide their  
10 comments. And then at the end of that, we'll have  
11 a discussion amongst the panel here.

12 So, with that, let's go ahead and get  
13 started with you, Dave.

14 MR. CLARK: Okay. Thank you.

15 And I was asked to give an educational  
16 perspective from Bismarck State College viewpoint.  
17 We were established -- just a little bit of  
18 background -- we were established in 1939. We're  
19 accredited through the Higher Learning Commission,  
20 North Central Association of Colleges and Schools.  
21 We'll serve about 4,100 credit students and 17,000  
22 non-credit through our continuing education

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1 efforts. We offer both online and on-campus  
2 programs across the country.

3 We're the third largest campus in the  
4 North Dakota university system behind our two  
5 research universities, UND and NDSU. We have 85  
6 programs that we offer: 42 associate degree  
7 programs, 42 technical programs, and one Bachelor  
8 of Applied Science and Energy Management. We also  
9 offer an array of customized training and  
10 apprenticeship programs here at BSC.

11 The building you're in here, this is the  
12 National Education Center of Excellence. It  
13 opened in 2008. It's about 106,000 square feet.  
14 And it was constructed with significant funding  
15 from business, energy, and both state and national  
16 government. And I need to give a shout-out to  
17 Basin Electric Power Cooperative. They provided  
18 the lead gift on this particular project. And  
19 also, the Department of Energy played a key role  
20 with our funding as well. The energy-efficient  
21 design includes a geothermal system, as well as a  
22 state-of-the-art lab facilities and equipment.

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1           Let's see if these slides work -- yes.

2   Okay.

3           This first slide -- and I know that  
4   Heidi said we were at zero percent unemployment.  
5   But what this actually indicates -- that we are  
6   the -- we have the lowest unemployment rate in the  
7   nation. And even in 2002, before the latest shale  
8   boom, you could see we were about 2 percent lower  
9   than the nation's unemployment rate at the time.

10   And in 2013, as we -- as the U.S. has been  
11   recovering from the recession, the U.S. rate  
12   dipping below 8 percent, our unemployment rate has  
13   dropped even more. We're at about 2-1/2 percent.

14           At the same time, there's been  
15   significant job growth in North Dakota. That's  
16   partly why our unemployment rate is so low.  
17   We've, over the last four years, averaged greater  
18   than a 3 percent annual job growth rate.

19           When you look at energy resources --  
20   and, you know, North Dakota has always been a  
21   commodity-driven economy here, very much so. And  
22   so, you know, a great bulk of our growth is tied

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1 to the energy boom. And you can see from this map  
2 the variety of energy we boast. And it is across  
3 the board: coal, wind, ethanol, hydro, and of  
4 course oil and gas.

5           The Bakken and Three Forks formations  
6 encompass much of western North Dakota and account  
7 for the astounding growth in our population,  
8 wealth and job demand. As a result, you can see  
9 the programs that BSC offers. And actually, we  
10 started serving the energy industry in 1970,  
11 utilities primarily, relating to electrical  
12 generation and transmission.

13           You can see the on-campus programs that  
14 we offer here. And in the last four to five years  
15 since the latest Bakken shale boom, we've added  
16 mechanical maintenance, instrumentation and  
17 control, renewable generation, and petroleum  
18 engineering technology to the list. We did  
19 previously offer Lineworker, our Power Plant and  
20 our Process Plant technology programs that  
21 supported utilities.

22           You can then also see we have extensive,

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1 online offerings. And that's a result of federal  
2 grants that have become available over the years.  
3 It has allowed our delivery methodology to grow.  
4 We started offering online programs in 1998. And  
5 we were able to expand them exponentially,  
6 especially in energy, thanks to grants from the  
7 National Science Foundation and Department of  
8 Labor. You can see the list of programs there.

9           And you can see, in 2011, we added  
10 Petroleum Production Technology and, in 2012,  
11 Water and Wastewater Technician, but as an  
12 extensive array of online offerings.

13           We also have other programs that support  
14 Bakken Workforce. We've prepared students to fill  
15 the pipeline in support industries affected by the  
16 boom, from welding to our healthcare programs.  
17 Our students are getting trained here and being  
18 employed in the state and as fast, and sometimes  
19 faster, than we can graduate them. Oftentimes,  
20 they're hired before they're able to graduate.

21           When you look our credit enrollment, in  
22 the last year, BSC served 1,359 students in energy

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1 programs from all 50 states, so that's primarily  
2 with our online delivery, and several foreign  
3 countries. An extension of our undergraduate  
4 offerings is our industry training. We leverage  
5 courses recognized and developed in cooperation  
6 with the energy industry. BSC offers cost-  
7 effective, customized, hands-on training and  
8 flexible schedules.

9           Our instructors teach technique and  
10 troubleshooting skills for a variety of employers.  
11 Offered in cooperation with our state's workforce  
12 training arm, TrainND, some examples of our recent  
13 training in North Dakota includes Dakota Prairie  
14 Refinery, which is just west of Dickinson. And  
15 that's the first refinery in the United States  
16 being built since 1976. We did the operator  
17 training for Dakota Prairie Refining. That's a  
18 cooperative venture between NDU and Calumet.  
19 We've done wind farm training with Minnesota  
20 Power.

21           For operators, we've had a longstanding  
22 relationship with Great River Energy. And they

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1 have just a new \$1,000,000 simulator on our campus  
2 that we train their people and use it in -- for  
3 classroom environment as well.

4           And then with the burgeoning natural gas  
5 processing industry, we've done training with  
6 ONEOK, Hess, Whiting, Aux Sable, all relating to  
7 gas processing. And, obviously, that's going to  
8 grow over time.

9           So in addition to our four credit  
10 students, we had about 1,700 non-credit students  
11 enrolled last year in almost every state and,  
12 again, some foreign countries. Of those, 977 were  
13 taking part in the smart grid offerings made  
14 possible by the DOE Smart Grid Grant.

15           The energy training BSC provides from  
16 both the credit and non-credit perspective is  
17 possible only because of the support and insights  
18 of our many national and statewide partners. Many  
19 of our partners are present here today. If you  
20 wander around this building, you'll find their  
21 names on the labs, the auditoriums, and the  
22 classrooms, acknowledging their significant

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1 engagement with our energy offerings and this  
2 incredible training facility.

3           Delivering state of the art training is  
4 dependent on our ability to create an interactive  
5 experience that duplicates what students see in  
6 their jobs. Through the use of animation and  
7 simulation, we have a super technical team at BSC  
8 focused solely on creating and updating that  
9 online curriculum. You see some of the  
10 interactive tools on this slide.

11           We also have remote students enrolled in  
12 online training and are able to engage very much  
13 like campus students thanks to innovations like  
14 our remote laboratories. And this is just an  
15 example of one, we have others as well.

16           BSC is not the only institution in the  
17 area ensuring the pipeline of workers is filled in  
18 North Dakota. One of the most important  
19 partnerships is our TREND Consortium. TREND  
20 stands for Training for Regional Energy in North  
21 Dakota. Supported by a \$14.6 million Department  
22 of Labor grant, BSC leads five community and

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1 tribal colleges in a state and tribal consortium  
2 creating job training in the areas of oil and gas,  
3 transportation, welding, building and  
4 construction.

5 I'd like to say thank you for the  
6 support we've received from the Department of  
7 Energy and our industry partners. Colleges just  
8 would not have the financial ability to provide  
9 this highly relevant education and training, if  
10 not for the external support.

11 In closing, I'd like to thank all the  
12 dignitaries here today: Secretaries Foxx and  
13 Muniz, Dr. Holdren, Assistant Secretary Schneider,  
14 our North Dakota Congressional delegation, and  
15 Governor Dalrymple. We are very proud to host you  
16 and proud of our role in moving the United States  
17 towards energy independence and developing the  
18 workforce that fuels the Bakken. Thank you.

19 MODERATOR KELLEY: Thanks, Dave.

20 Steve, before we move on to you, I  
21 neglected to make a comment; and please don't take  
22 this personally. This applies to the whole panel.

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1           The views expressed by the panel are  
2 their own views here today, including Dave, and  
3 not the views of the Administration, including the  
4 U.S. Department of Energy, Department of  
5 Transportation, or Department of Interior.

6           All right. With that out of the way,  
7 Steve.

8           MR. SHEPHERD: Thank you.

9           My name is Steve Shepherd. I currently  
10 hold the positions of the CTE Coordinator and  
11 Welding Program Director at United Tribes  
12 Technical College. I am also a Union Ironworker,  
13 where I specialize as a welder on skyscrapers,  
14 amongst other things.

15           United Tribes Technical College's  
16 interim president Phil Baird had a prior  
17 engagement and has asked me to fill in for him,  
18 and I am honored to be sitting here in his place  
19 amongst these great leaders of respected colleges  
20 and organizations.

21           In my position as CTE coordinator at  
22 United Tribes, I oversee all the short-term

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1 workforce training programs. These programs  
2 include construction technology, electrical  
3 technology, heavy equipment operator, CDL Class A,  
4 welding, and medical billing and coding.

5           In the great state of North Dakota,  
6 there are a lot of great things going on. In  
7 conjunction with the Bakken oil boom, the state  
8 now has an unemployment rate of less than 3  
9 percent. There were 23,501 job postings online  
10 through Job Service North Dakota as of July of  
11 this year, constituting an increase of 15 percent  
12 over the same time period of the previous year.  
13 There were 8,361 active in-state resumes to fill  
14 these jobs. Some employers have simply stopped  
15 looking for employees to fill these positions.

16           The combined low unemployment rate and  
17 economic growth has created a critical workforce  
18 shortage in many industries in North Dakota.  
19 There aren't enough qualified workers to fill the  
20 continual growing workforce demand in the region.

21           There is a great economic disparity on  
22 the American Indian reservations in the region.

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1 The TAACCCT grant has helped area community  
2 colleges and tribal colleges to equip, furnish,  
3 and develop programs to train students. United  
4 Tribes Technical College received TAACCCT funding  
5 for a consortium project we call DeMaND. DeMaND  
6 is short for Tribal College Consortium Developing  
7 Montana and the State of North Dakota Workforce.

8           The consortium partners include  
9 Cankdeska Community College in Spirit Lake; Fort  
10 Peck Community College in Poplar, Montana; Aaniiih  
11 Nakoda College in Harlem, Montana; and, of course,  
12 United Tribes Technical College right here in  
13 Bismarck, North Dakota.

14           Reservation communities served by the  
15 DeMaND Project are primarily low-income, isolated,  
16 and have experienced persistent and historical  
17 poverty and chronic unemployment. Unemployment  
18 rates on these Reservations are much higher than  
19 any other part of the state, estimated at well  
20 over 50 percent.

21           In 2005, prior to the economic  
22 recession, it was estimated that the unemployment

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1 rate was 66 percent for American Indians in North  
2 Dakota. It may be more accurate to compare  
3 employment rates rather than unemployment rates  
4 when discussing communities where a significant  
5 segment of the population stops looking for work  
6 because their odds of finding work are so low.

7           Very little economic development  
8 activity occurs on the Reservations in this region  
9 of the country, with the exception of the Fort  
10 Berthold Indian Reservation, located in the center  
11 of the Bakken oil activity. According to  
12 estimated ranges based on a 90 percent confidence  
13 interval, in several states, including Montana and  
14 North Dakota, less than 50 percent of Native  
15 Americans are working, among those who are 16  
16 years of age or older and who are living in or  
17 near tribal areas of federally recognized tribes."

18           The unemployment -- or, I'm sorry -- the  
19 employment rates of Native Americans compared to  
20 non-Native Americans in North Dakota are among  
21 some of the worst in the nation. In North Dakota,  
22 which is ranked second poorest, Native Americans

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1 are 24.4 percent less likely than non-Native  
2 Americans to be work employed.

3           The regional workforce shortage is an  
4 opportunity to help people in and around these  
5 communities to train and access gainful  
6 employment, much of which exists off of the  
7 Reservations in western North Dakota, and work  
8 toward breaking the cycle of poverty. The DeMaND  
9 project's primary focus is to help people living  
10 in these high poverty and low employment areas  
11 engage in the workforce opportunities available in  
12 the region. While it may seem relatively easy to  
13 train these folks for jobs, what is much harder is  
14 to help people who have lived with persistent  
15 poverty understand how to successfully to  
16 transition into the workforce.

17           While workforce development is not a new  
18 concept to tribal colleges, or other colleges for  
19 that matter, the current situation we are in has  
20 helped area colleges such as United Tribes build  
21 their capacity through the use of state-of-the-art  
22 facilities, equipment, rigorous examination of

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1 student support and educational practices, and  
2 working in close partnerships with other tribal  
3 colleges and regional employers, which has been a  
4 new and exciting pathway for us.

5           Regional employers have indicated that a  
6 lack of available, qualified workers have caused  
7 some to stop looking for new workers and to limit  
8 their operations accordingly. They are also  
9 anxious to work with colleges to help strengthen  
10 their workforce. One partner employer indicated  
11 that the only condition holding them back from  
12 expanding into the Bakken is a lack of qualified  
13 employees or prospects.

14           There are various employers such as  
15 Butler Machinery, RDO, BNSF, as well as  
16 Pipefitters, Ironworkers, Boilermakers,  
17 Electricians and Operators Unions that have a huge  
18 need for employees across the State of North  
19 Dakota and our great nation. It is no secret that  
20 there is a severe workforce shortage in North  
21 Dakota.

22           Conversely, there is a high unemployment

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1 rate on the Reservation. Because of the rural  
2 nature of the colleges in their home agency,  
3 training programs are often offered in isolation  
4 and are not readily available to students who do  
5 not already live in close proximity to the  
6 institutions that offer them due to a lack of  
7 housing. And that is where United Tribes comes  
8 in.

9           Typically, TCU programs are limited to  
10 students who live in the vicinity of the colleges  
11 because of the lack of housing. United Tribes  
12 Technical College is different and an exception  
13 due to the fact that we have housing and dorms,  
14 which in turn makes it easier for us to train  
15 students.

16           The college has garnered support from  
17 Job Service North Dakota, which oversees the TAA  
18 for Workers programs and the Workforce Investment  
19 Board in North Dakota. Job Service North Dakota  
20 has agreed to partner with the project to help  
21 promote the project.

22           We have to extend great gratitude to Job

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1 Service North Dakota who coordinated the Skill  
2 Build Program which has helped fund many of the  
3 students in our programs -- not only in our  
4 programs but throughout the state. While we  
5 understand the opportunity may not become  
6 available again, Job Service is willing to provide  
7 student support resources as available. That kind  
8 of support is critical to student success and  
9 program success of any nature.

10           At United Tribes Technical College, we  
11 offer welding, electrical tech, construction tech,  
12 and are currently expanding our heavy equipment  
13 and CDL program, as well as all of the other  
14 programs that United Tribes (inaudible) has to  
15 offer. We offer state-of-the-art facilities and  
16 equipment and believe we have some of the best  
17 instructors the industry has to offer. United  
18 Tribes ensures that graduates have the technical  
19 skills that they need for the occupation for which  
20 they are trained.

21           One of the greatest challenges, however,  
22 has been helping students transition from the

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1 training programs to employment. There are  
2 several reasons hypothesized for this phenomenon  
3 based on broader studies regarding poverty and  
4 unemployment trends, including family  
5 responsibilities, substance abuse challenges,  
6 insecurities, and lack of reliable transportation.  
7 In addition, students who have limited or no  
8 experience away from the Reservation are insecure  
9 and less confident about gaining employment away  
10 from the Reservation.

11           There is a limited economic development  
12 and few job opportunities within the Reservations  
13 which tribal colleges are located. Students must  
14 commute or relocate in order to attain gainful  
15 employment in these high-demand fields. Students  
16 that have significant experience through military,  
17 previous work experience, living, or schooling are  
18 much more confident about accessing employment  
19 after completion of training.

20           Those who have had little or no  
21 experience were reticent about accessing  
22 employment after completion of training. Reasons

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1 for this vary and students are unclear about  
2 workplace expectations and culture; they have  
3 difficulty envisioning life away from extended  
4 family in unfamiliar communities; and they don't  
5 know how to manage family obligations and work.  
6 Some simply fear the unknown. That's the work I  
7 am here to do, to help each and every student that  
8 comes to United Tribes for training in some short-  
9 term workforce training of their choice.

10           We understand these are some of the same  
11 reasons students choose local tribal colleges  
12 rather than mainstream institutions. Although  
13 mainstream colleges have support systems in place  
14 for traditional students, tribal colleges foster  
15 cultural identity, have safe connections to local  
16 communities, provide culturally responsive  
17 curricula, and offer supportive faculty as mentors  
18 and advisors who provide academic and emotional  
19 support and are often considered one of the most  
20 important components of the overall educational  
21 experience.

22           MODERATOR KELLEY: Steve, I need you to

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1 wrap up your comments when you can.

2 MR. SHEPHERD: I'm almost done here.

3 MODERATOR KELLEY: All right.

4 MR. SHEPHERD: Students from all over  
5 the country come to United Tribes. When they  
6 complete their training, they are skilled in their  
7 chosen occupation. What is often difficult to  
8 overcome is those starting costs of living on  
9 their own without the student services and housing  
10 available at United Tribes.

11 As a way to help graduates enter the  
12 workforce, we have come up with a new strategy.  
13 Now we can offer students who pursue employment in  
14 the Bismarck/Mandan area the option of an extended  
15 stay so that upon completion of their respective  
16 training, students can stay at United Tribes for  
17 up to three months as long as they abide by the  
18 rules of the college and are employed until they  
19 are ready to find housing of their own or ready to  
20 do that.

21 We continue to work on developing  
22 strategies designed to address the workforce

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1 shortage in the region while decreasing  
2 unemployment and poverty on the state's  
3 Reservations. Tribal colleges have the best  
4 access to the untapped labor force on the  
5 reservations. The funding from the North Dakota  
6 Tribal College Grant through the Department of  
7 Commerce, funding from the EDA, and TAACCCT  
8 funding from the Department of Labor have helped  
9 United Tribes build the infrastructure needed to  
10 provide quality training for the high wage, high  
11 skill, and high-demand jobs in this region.

12           And we look forward to in helping  
13 students with having the facility, equipment, and  
14 personnel to continue our means of supporting at-  
15 risk poverty students.

16           I want to thank everybody for listening  
17 and apologize for taking a little bit longer.

18           MODERATOR: Thanks, Steve.

19           Ron.

20           MR. NESS: Thank you very much.

21           My name is Ron Ness, I'm the president  
22 of North Dakota Petroleum Council. We represent

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1 over 500 companies doing business in North Dakota  
2 oil and gas industry. We're very glad to have all  
3 the federal officials in town this week and  
4 especially glad that you've taken the time to  
5 spend a few days touring North Dakota's energy  
6 resources.

7 My comments today are going to talk  
8 somewhat about what the previous two speakers have  
9 talked about: what is the Bakken and what has  
10 happened to North Dakota's workforce opportunity  
11 as a result of that?

12 As we all know, we recently reached one  
13 million barrels a day. That's just a number.  
14 But, in essence, the number is to show the  
15 significance of the resources of Bakken and to  
16 stimulate the understanding and the magnitude and  
17 the means for infrastructure --long-term,  
18 substantial infrastructure investments, and  
19 understand, really, the significance of this and  
20 the reinvestment we need in the Bakken, not only  
21 in infrastructure, but workforce and all of the  
22 other social, economic, type of issues.

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1           That's \$50 million a day of economic  
2 impact across North Dakota. The state collects  
3 over \$11 million a day in oil and gas production  
4 taxes. And about \$1 million of that goes back to  
5 the state and local governments.

6           Released last week was the new study  
7 issued by North Dakota Job Service. And that  
8 information told us that there are now 55,000  
9 direct jobs in North Dakota directly related to  
10 oil and gas industry. This does not include  
11 remote people that come and go. These are the  
12 people working on jobs in North Dakota. One of  
13 seven jobs in the state are now related to oil and  
14 gas. That's 15 percent of all of our jobs. Just  
15 in 2005, there were 5,000 direct jobs.

16           So you can look at the magnitude of  
17 growth. And when you multiply that on top of that  
18 the hospitality, the construction and all of the  
19 related jobs, you get somewhat of a sense of  
20 almost the significant impact we're looking at.

21           And statewide, we have 11 counties where  
22 25 -- at least 25 percent of their jobs are

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1 related to oil and gas. And some counties are  
2 well over 80 percent. And 28 percent of our total  
3 state's private wages are being paid by the oil  
4 and gas industry in North Dakota. That's over \$5  
5 billion a year.

6           This is a graph showing we are  
7 transitioning out of what we consider a transient  
8 type workforce into a more stable, permanent  
9 workforce where you've got employees here who  
10 follow the drilling rigs, employees here who maybe  
11 are here for certain construction jobs. You are  
12 now seeing production and maintenance jobs.  
13 Companies are having to hire additional workers to  
14 daily check those wells, check those operations,  
15 and operate the gas plants. All of the facilities  
16 out there now need people who need to live within  
17 an hour of that well site. Substantial change  
18 that we're beginning to enter.

19           In North Dakota as a whole -- we've  
20 heard this talked about before -- but the  
21 expectation is that we're going to add another  
22 76,000 jobs in North Dakota by 2020. And only

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1 about 35 percent of these are energy-related. And  
2 on those energy-related jobs, 88 percent of the  
3 employees need basic -- some type of basic skill  
4 training that the previous two employers have  
5 talked about. So the opportunity here is  
6 significant.

7 So who are we going to hire? Who are we  
8 going to train? Who are we going to be retrain?

9 We know that North Dakota just does not  
10 have this type of workforce availability. We  
11 think the Federal Government can specifically help  
12 Veterans and minorities. This is a perfect fit.  
13 They understand working and challenging, hard work  
14 situations. They are perfect employees for us.

15 You have the Skill Build Program that I  
16 think North Dakota is implementing and utilizing.  
17 We encouraged more support and utilization of  
18 that. Workforce training, as we've previously  
19 heard about, is critical. Retraining is critical.  
20 I believe the unemployment rate on the (inaudible)  
21 is virtually zero. So when you look at 66 percent  
22 on our other Reservations, virtually zero of where

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1 there's oil and gas activity, and the same things  
2 I heard from tribal members there. They want to  
3 live and work where they grew up and where they're  
4 comfortable.

5           But nationwide, the focus by the  
6 unemployment insurance agencies on understanding  
7 vacancies, these aren't just oil and gas jobs.  
8 These are nurses, teachers, hospitality workers.  
9 We need everything. We need business people. The  
10 biggest demand on the oil and gas site, we need  
11 business people. And colleges produce us good  
12 business students.

13           I want to throw out a major pitch,  
14 though, at the Federal agencies. We need quality,  
15 Federal employees in North Dakota. It's extremely  
16 difficult to the Federal agencies to recruit and  
17 retain Federal employees in the BLM, BIA, U.S.  
18 Fish and Wildlife, U.S. Forest Service. There  
19 needs to be salary adjustments. There needs to be  
20 relocation pay, housing pay, all of the things  
21 that all of us are having to do, the Federal  
22 Government needs to step up and make those changes

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1 immediately because it's extremely important.

2           So what are the obstacles to attracting  
3 these people here? Longevity. We still have the  
4 concern. This is real. Is this here? Is this  
5 significant? Markets and transportations. What  
6 makes this longevity sustain itself are markets  
7 for our products. We're just like farmers. We  
8 rely on commodity price. We need to have  
9 pipelines. We need to have high-quality roads.  
10 Four-lane highways like on Highway 85 are now  
11 critical for safety, critical for the communities,  
12 but also critical for transportation.

13           Air service? What I hear from employees  
14 who are coming in that Senator Heitkamp was  
15 talking about, if they're going to move here, they  
16 want to be able to get back home and see their  
17 families. If they're going to bring their family,  
18 their family has extended family elsewhere. We  
19 need substantial air quality, air service in North  
20 Dakota that gets us across this country.

21           But clearly, the biggest issue is  
22 affordable, single-family housing, and we are

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1 seeing it built. And the state is doing a lot,  
2 but more can be done. And the one that I never  
3 thought we would be so heavily involved is  
4 daycare. You have to have daycare; daycare is  
5 critical. And there's more that can be done from  
6 the state and federal in support of getting  
7 daycare in place.

8           So what does all of this mean for North  
9 Dakota? This does not come without change. Just  
10 read your -- listen to your radio on the way here  
11 this morning. A national, world -- across the  
12 world, we are the tip of spear on the learning  
13 curve for oil shale. There's no better place for  
14 the world to learn about oil shale than right here  
15 in North Dakota. We have a history of solving  
16 challenges. We have a history of working  
17 together. We're small enough, we're nimble  
18 enough, that we can make the adjustments. But  
19 it's a learning process. We all understand that.  
20 Housing, roads, traffic, crime, spills, filter  
21 socks. All of these things are things that we're  
22 going to solve, but the big, critical piece is

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1 infrastructure and infrastructure for workforce.

2           This is renaissance for rural North  
3 Dakota. All of us that grew up across North  
4 Dakota knew that we we're on massive change. It  
5 was just a slow, decline of death. Closing  
6 schools versus having to have tough meetings now  
7 to build new schools. Votes to close businesses,  
8 votes to open new businesses and expand. That is  
9 the renaissance that we've been searching for here  
10 for three decades. It doesn't come easy. There's  
11 populations; there's kids; there's young people.  
12 Those are things that we like to see across North  
13 Dakota. And we will tackle those challenges.

14           The wealth creation helps farmers in  
15 difficult times. This is the diversity that we've  
16 been waiting for to assist our agriculture  
17 industry through those tough periods in their  
18 commodity challenges. But in addition, there are  
19 tremendous entrepreneurial opportunities. That's  
20 why people from across the world are coming here,  
21 not only looking to see what the opportunity is  
22 here, but what they can take back home.

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1 Thank you for your time, and we will be  
2 happy to answer any questions.

3 MODERATOR KELLEY: Thanks Ron.

4 Pam.

5 MS. TRHLIK LINK: Good morning. And  
6 thank you very much for the opportunity to be part  
7 of today's essential discussion. These can help  
8 bring an advance balanced, responsible energy and  
9 infrastructure policies, bring solutions to a  
10 growing workforce need, and assist with continued  
11 growth in this region.

12 My name is Pamela Link. And I come to  
13 you wearing several different hats. I am  
14 currently the McLean County chairperson. I am the  
15 Governmental Affairs Director for the Laborers  
16 District Council of North Dakota and Minnesota.  
17 And I'm also a small business owner. I have  
18 extensively in my career on business improvement  
19 and retention and want to continue to be part of  
20 workforce development solutions.

21 It is an exciting time for my state. I  
22 grew up in Bowman and Slope County, counties that

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1 are experiencing a huge boom due to oil increases.  
2 And I now live in McLean County, one that is  
3 strong in agriculture, growing in oil development,  
4 and has been a coal and energy producer for more  
5 than 40 years. It is also a county that has a  
6 segment of workforce population that I believe can  
7 be educated further to meet the demands that North  
8 Dakota currently has.

9           Of course, thanks in part to the oil  
10 boom, North Dakota boasts the fastest-growing  
11 economy and the lowest unemployment rate in the  
12 nation. But what does this translate to?  
13 Workforce demands that are unheard of in our 125-  
14 year history.

15           As Mr. Shepherd said, we have more than  
16 23,500 jobs. And if you look at that, you know  
17 there are thousands more, especially in the  
18 service industry. They're not represented on that  
19 Job Service site. So where are the workers  
20 needed? Actually, the more important question is,  
21 where aren't workers needed? Right now, through  
22 the labors, I see pipeline and gas line expansion.

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1 And that needs to grow at a rapid rate to keep up  
2 with demand. Electric utilities need plant  
3 upgrades and transmission lines. Small  
4 communities that are experiencing unprecedented  
5 growth need new sewer facilities and water  
6 treatment plants.

7           And, of course, as Mr. Ness said,  
8 affordable housing is needed not just in the  
9 western half of the state, but throughout the  
10 state, oftentimes in the eastern side where  
11 families are living and a husband or wife is  
12 working in the oil field.

13           North Dakota's transportation system. I  
14 worked for Knife River Corporation for a while and  
15 understood even four and five years ago the depth  
16 and the breadth of how much the United States  
17 needs an improved transportation infrastructure  
18 system. And these are only the tip of the  
19 iceberg. However, much of the work above requires  
20 the aforementioned skilled labor with individuals  
21 requiring a 2-year degree, technical degree, or  
22 simply people with a desire to work harder.

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1           We've seen a flood of workers come into  
2 this state, but we need more. With my role as the  
3 Laborers, I have witnessed this firsthand. Three  
4 years ago, there were fewer than 120 members in  
5 the State of North Dakota. Right now, we balance  
6 between 650 and 700. And when pipeline work is  
7 heavy, there are more than 1,200 workers in the  
8 state. Currently, our membership represents about  
9 17 states. But again, as pipeline work increases,  
10 we've seen anywhere up from 35 to 40 states  
11 represented coming in wanting to work on  
12 pipelines.

13           Now, as a commissioner, in one of the  
14 counties that actually has a lower oil producing  
15 rate right now, I also get to see workforce from a  
16 different perspective. County employees,  
17 especially with highway and law enforcement, are  
18 persistently recruited away for their skills once  
19 they've gained the necessary experience. In the  
20 county, we've spent thousands more advertising,  
21 recruiting, and replacing employees that have been  
22 drawn to the oil field.

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1 I believe that there is a greater need  
2 for private business, state, and local government  
3 to partner and sponsor existing programs in the  
4 state to find a necessary workforce balance. We  
5 need to prioritize and promote the top job needs.

6 The state also holds a wealth of  
7 workforce training centers and tech colleges, just  
8 like Dave talked about Bismarck State College.  
9 But they can help provide that skill to a  
10 workforce. But I believe the priority is really  
11 making that connection for people who need jobs  
12 with the skills and with the employees.

13 During the last three years, I've had an  
14 incredible opportunity to work with staff from two  
15 of the tribal colleges and many of the vo-tech  
16 programs in the high school.

17 Mr. Shepherd is one of them. I have  
18 spent hours with him talking about his programs  
19 and where workforce can be skilled at United  
20 Tribes. And he mentioned all of the programs that  
21 he has ramped up, and he has taken a role. And I  
22 have watched him use his own resources, his

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1 personal resources, to make sure those programs  
2 are growing.

3 I've worked with Edna Sailer at Fort  
4 Berthold Community College, who has also worked at  
5 top-notch jobs in construction, CDL programs,  
6 safety, and carpentry. If you ever have a chance,  
7 step into the Bismarck Career Academy right here  
8 on the campus of BSC. It is a premier resource  
9 for this state.

10 And as the Laborers expand their  
11 training programs, and as the other building  
12 trades that I work with extend their programs, our  
13 intent is to partner with the tribal colleges and  
14 also with the vo-tech programs in the state to see  
15 how we can complement each other.

16 With all of the educational and training  
17 opportunities, there continues to be again that  
18 vast gap in connecting qualified workers with the  
19 appropriate employers. North Dakota Job Service  
20 does an incredible job with an incredible  
21 workload. Now you start to see within the state  
22 more creative avenues are being explored to make

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1 workforce connections and these need to be  
2 expanded.

3 Hats off to the Governor's office,  
4 working with North Dakota Department of Commerce  
5 and Job Service for their "Find a Good Life in  
6 North Dakota" campaign. It's something that  
7 business should help co-brand, expand on, because  
8 many of us represented here in this room represent  
9 how good a life there can be in North Dakota.

10 The North Dakota Building Trades are  
11 encouraging members from other state locals into  
12 our training and apprenticeship programs and  
13 increasing our training efforts -- opportunities.  
14 Senator Heitkamp recently announced new funding  
15 sources for North Dakota's Tribal Nations, with  
16 more than \$900,000 to help with employment and  
17 training opportunities. Within McLean County, a  
18 very small portion of the county, Fort Berthold  
19 Indian Reservation falls on that corner. And to  
20 add to that, it is a joy to see that there are  
21 more opportunities for tribal members in our  
22 county.

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1           Several years ago, I got the opportunity  
2 to work with the North Dakota Ambassador's  
3 Program, which is still thriving, has more than  
4 9,000 members across the nation and some in  
5 foreign countries, pushing the joys about  
6 workforce and living in North Dakota. Last week,  
7 I actually heard of one of the most creative  
8 things. How many of you have heard of eHarmony?  
9 It was all over the news that eHarmony is getting  
10 in the workforce business. So now you can find,  
11 you know, not just the love of your life, but the  
12 work that you can love.

13           In conclusion, workforce needs will only  
14 continue to grow within the state. When projects  
15 such as the Sandpiper Pipeline kick off, new  
16 utility lines continue to be constructed, and  
17 millions more for highway and bridge construction  
18 in the state is released, the employment crunch  
19 will continue.

20           But from my perspective as a North  
21 Dakota native, a county commissioner, working with  
22 the Laborers, and as a small business person, I am

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1 thrilled that my state has experienced this  
2 economic and financial growth.

3 But to sustain our place on the national  
4 and international scene as a prime energy  
5 producer, to keep families economically strong,  
6 workforce recruitment, development, and retention  
7 efforts need to take a greater priority in the  
8 state and across the nation. Thank you.

9 MODERATOR KELLEY: Thanks, Pam.

10 Brad.

11 MR. HAWK: Hello. My name is Brad Hawk.  
12 I'm with the North Dakota Indian Affairs  
13 Commission. We're a state agency that is a  
14 liaison between the state agencies and the tribal  
15 nations. Scott Davis is our executive director,  
16 and he is unable to make it today, so I'm here in  
17 his place.

18 I want to, kind of, talk a little bit  
19 about what Steve Shepherd was alluding to earlier.  
20 The -- talking about how the -- there's a lot of  
21 jobs in North Dakota, but our reservations in  
22 North Dakota still see a higher rate of

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1 unemployment. But just to talk about some of the  
2 strategies that are happening, a lot of things  
3 with our tribal colleges in North Dakota, each  
4 Reservation has their own community college. And  
5 United Tribes Technical College is the fifth one  
6 in the state.

7           So when you look at the things that are  
8 happening at the tribal college level, they're  
9 doing everything from quick turnaround workforce  
10 training, and it was talked about earlier with the  
11 workforce development grant that the state  
12 provided a \$1 million to each tribal college. And  
13 what they're doing with that is kind of unique.  
14 They're adding CDL programs for truck drivers or  
15 bus drivers. They're doing different things like  
16 oil field operation programs. So they're getting  
17 pretty diverse in what they're able to provide.

18           The other part of it is that a lot of  
19 the tribal colleges are seeing issues with getting  
20 their graduates placed. And the issue is not that  
21 they're having trouble finding them; they're just  
22 not getting enough graduates out. And so that's

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1 been the push is to get a lot more students  
2 through their systems to get them in the  
3 workforce. So that's just one thing that the  
4 tribal colleges are trying to fill the need.

5           And it was expressed earlier this year  
6 that the tribal colleges are ramping up all of  
7 their instructors. They're getting services to  
8 not only take the students after they graduate out  
9 to the workforce, but they're making roads to  
10 transport them back and forth.

11           So there's new things that are happening  
12 out there with the tribal colleges. And from our  
13 office, we get to meet with a lot of the leaders  
14 in the tribal colleges in North Dakota. And it's  
15 nice to see that there's innovative ways of  
16 getting the workforce out into to either the oil  
17 field or other service areas in North Dakota.

18           One other thing I'd like to mention too  
19 is -- Steve kind of touched on this a little bit -  
20 - but there are a lot of partnerships happening.  
21 And I know from firsthand meetings and from  
22 discussions that the tribes of North Dakota are

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1 starting to make a lot of connections with  
2 different for-profit groups, but also with the  
3 university system, things that are happening now  
4 with, you know, trying to do more with the  
5 training, utilizing other people's resources and  
6 pulling in new partners has been an important role  
7 for the tribal colleges.

8           The other part I'd like to talk about is  
9 the Department of Commerce Workforce Grant, the \$1  
10 million. We're, at the state level, looking at  
11 doing that again in this next coming session. And  
12 so we'll be working with the tribal colleges to  
13 assess the first round of these grants. And then,  
14 you know, put the -- I guess, kind of, the data  
15 from that grant to know that this program is  
16 working.

17           So one of the other colleges talked a  
18 little bit about how they're able to add electric  
19 technology. I know United Tribes has added that.  
20 They've also done a CDL program. So when you're  
21 talking about how fast these colleges are coming  
22 to the table and offering new workforce, it's been

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1 kind of remarkable to see how fast they've been  
2 turning that around.

3 I guess the other issue that we're  
4 noticing is that when we're looking out in  
5 Trenton, they're out in the Bakken area. They've  
6 been experiencing issues with filling service  
7 staff also. And I think that's pretty common in  
8 the western half of the state, so we've been  
9 working with them to try to fill the gaps that  
10 they have there. But it is an issue that we're  
11 seeing a lot of.

12 So, with that, I'll cut my comments off.  
13 And I'll take any questions.

14 MODERATOR KELLEY: Thanks, Brad.

15 So after hearing from all the panelists,  
16 I've crafted a few questions here for you.

17 So why don't we go ahead -- we'll start  
18 down here with you, Dave.

19 So, Brad, you actually touched on one of  
20 the questions I wanted to address, but I wanted to  
21 hear from some of the others.

22 You talked about some specific

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1 technologies that folks are being trained in and  
2 specific needs that are out there. So we've heard  
3 a lot about low unemployment in the state and a  
4 high need for filling these technical skilled  
5 positions. So what specific technologies are you  
6 looking to train or do you think are in the  
7 highest demand right now?

8 MR. CLARK: Well, from Bismarck State  
9 College's perspective, we have a number of  
10 programs in high demand. When you look at, you  
11 know, specifically what's happening with the  
12 Bakken Shale play, we've seen significant growth  
13 with our process plant technology program.  
14 That's, you know, directly related to the flaring  
15 issue and, you know, has the capacity to reduce  
16 the flaring out in the fields. It is directly  
17 related to the operations of -- in the western  
18 part of the state. And so as that capacity ramps  
19 up, they're going to need more operators, more  
20 technicians to operate those plants. You know, we  
21 have a really great fit with our program. And so  
22 we've established those relationships already with

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1 the operators in the Bakken.

2           You know, another is instrumentation and  
3 control. And, you know, it's a high demand field,  
4 a high degree of technical skill with that program  
5 and high wage. And, you know, so it's really a  
6 win-win situation where you can have students take  
7 one- or a two-year program and INC is a two-year  
8 program; the first year is electronics. But they  
9 can graduate and go into a field that's high wage,  
10 great benefits, and meets the need, you know, of  
11 business and industry as well.

12           You know, welding is in high demand.  
13 And, you know, we have waiting lists for many of  
14 these programs. So some of the issues the  
15 colleges are dealing with is this capacity. You  
16 know, I mean, they're limited enrollment type  
17 programs. They're limited enrollment because of  
18 the space you need for the lab part of the  
19 curriculum. And, you know -- and so, you know,  
20 that's something we try and address the best we  
21 can and -- but we know there's the demand and a  
22 need out there. But, you know, it's pretty much,

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1 you know, across the board, at least as we see it.

2           You know, line worker program is in  
3 demand. I mean, the power requirements out in the  
4 Bakken as you -- as they ramp up the production  
5 levels is great. And so you have a need for line  
6 workers. So that's kind of a niche program for  
7 us, a high demand program for us. So, you know,  
8 it's pretty much across the board relative to the  
9 fit. And, you know, in some of the cases I just  
10 mentioned, they're hiring our people before they  
11 graduate because they have such a huge need for  
12 the workforce.

13           Fortunately, with our online capacity,  
14 they can complete, you know, their curriculum  
15 online. But, you know, we would prefer they'd,  
16 you know, stay and graduate. It would help our  
17 completion rates, you know. But that's the way it  
18 is. I mean, you've got a unique situation.  
19 There's just been such rapid growth, and so we  
20 deal with it the best we can.

21           MODERATOR KELLEY: Thanks, Dave.

22           Steve, you care to comment?

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1 MR. SHEPHERD: I have no comment.

2 MODERATOR KELLEY: Okay.

3 Ron, any comments on specific  
4 technologies?

5 MR. NESS: I would say the -- obviously,  
6 we need petroleum engineers. We need geologists.  
7 But, you know, we're able to attract and grow  
8 those programs, but the universities are doing a  
9 great job. Diesel mechanics is a job that across  
10 the state, whether it's agriculture or energy,  
11 huge, huge demand growth. And I think Dave hit on  
12 many of the others. But I think across all  
13 spectrums, those two-year trades are going to be  
14 critical.

15 MODERATOR KELLEY: Thank you.

16 Pam, anything to add?

17 MS. TRHLIK LINK: I would like to add to  
18 that, if you have a CDL, you can basically write  
19 your ticket in North Dakota. And you see that a  
20 lot with the trades and in the different training  
21 programs, where they're bringing people from all  
22 across the country if you have your CDL.

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1           MODERATOR KELLEY: Thank you.

2           And, Brad, did you have any others to  
3 add?

4           MR. HAWK: Just that -- add on to what  
5 Pamela said with the CDL, a lot of the tribal  
6 colleges are -- have some kind of a system or some  
7 program that's addressing CDL training. And so I  
8 think the other part of it is just making sure  
9 that we make those partnerships with other  
10 trucking companies or other for-profit agencies or  
11 organizations that would employ them after  
12 graduation.

13           MODERATOR KELLEY: Thank you.

14           So my next question is, we heard about  
15 the challenges associated with training here, to  
16 train folks here in the state.

17           Pam, you mentioned a program, "Find a  
18 Good Life in North Dakota," as a way to attract  
19 resources to the -- or to the state. I'd like to  
20 give others a chance to maybe remark on that and  
21 talk about if there's a Federal role in any way to  
22 help support attracting workers here to this

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1 state.

2 Anyone care to take that?

3 MR. NESS: Well, I had mentioned the  
4 focus -- we not only tried to get North Dakota Job  
5 Service to focus, but regional job services to  
6 focus. This is -- North Dakota's energy industry  
7 and these jobs are not just a North Dakota, it's a  
8 regional, economic pull that we're seeing from the  
9 Black Hills.

10 But, you know, these people need to have  
11 a plan. They need to know: what are the skill  
12 sets? What are the training demands? Where am I  
13 going to live? All of those things that can be  
14 provided through the job services across this  
15 country that can help prepare people and not only  
16 show them what are the jobs like, what are my  
17 opportunities. Those are the critical things that  
18 the -- through Job Service, I believe, you could  
19 provide that would be essential whether -- and the  
20 minority opportunities.

21 But those Veteran opportunities, we've  
22 tried to work with Veteran's groups in North

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1 Dakota. And they have a really hard time reaching  
2 out and getting the message into North Carolina or  
3 into -- you know, we find a lot of success  
4 attracting employees from across the northern  
5 tier. They understand the climate, the hours of  
6 work, and those different things. So we could use  
7 some significant help in those two areas.

8 MODERATOR KELLEY: Thank you.

9 Anyone else care to comment?

10 MR. CLARK: Well, I would just add, you  
11 know -- and housing was brought up. Even on, you  
12 know -- when you look at our situation on our  
13 campus, we have limited housing capabilities. We  
14 have, you know, demand to attend school and cannot  
15 meet -- and the community has very tight housing  
16 inventory.

17 So, you know, any support that can be  
18 provided with that particular infrastructure need  
19 would be beneficial. And especially, you know, if  
20 you're dealing with -- in areas where you're just  
21 seeing this rapid build-up and growth that's  
22 occurring.

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1           MODERATOR KELLEY: Okay. Thank you.

2           Any other comments?

3           So let me ask a question; that we've got  
4 the QER Task Force here. They're listening.

5 They're interested in hearing what you have to

6 say. If you had a chance to give them one

7 recommendation for the role of the Federal

8 Government in addressing these workforce issues,

9 what would that one, specific recommendation be?

10           Brad, do you want to start?

11           MR. HAWK: I think it's going to be

12 multiple areas. I mean, we can't focus on just

13 one area. I think what we're seeing is the

14 different service areas throughout the state are -

15 - they all have needs. I do a lot of stuff with

16 the healthcare field and just talking about

17 providers for basic services is what we're seeing

18 as an issue.

19           But in the energy field, I mean, there's

20 a lot of good things happening with education and

21 training. I think we just got to keep up with

22 that. But we also need to make sure those

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1 partnerships are happening with employers after  
2 the people are being trained, so that's kind of  
3 what I think.

4 MODERATOR KELLEY: Thank you.

5 Pam?

6 MS. TRHLIK LINK: I've got two. One has  
7 bene mentioned: housing. I don't know how many  
8 ways you can talk about housing that we haven't  
9 already discussed in North Dakota.

10 I believe the second one is a lot of  
11 pressure to get a comprehensive highway bill  
12 passed. It's been 2009 since it's happened. And  
13 with Ron saying that, you know, we could be  
14 looking at an additional 76,000 jobs in 2020, what  
15 does that do to our highway system? What does  
16 that do to our bridge system, our rural roads that  
17 already in trouble in the state? I think that's  
18 one of the biggest things we can do to sustain all  
19 of the energy production going on in North Dakota.

20 MODERATOR KELLEY: Thanks.

21 Ron?

22 MR. NESS: I would encourage the team to

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1 look at underscoring the value of energy to this  
2 country in terms of not only what it means to us  
3 and our reliance on foreign oil but in terms of  
4 what it means to us in terms of our economy and  
5 jobs for future, for our own energy needs and in  
6 looking at the importance of pipelines, of  
7 railroads, of highways, and all of those key  
8 infrastructure things that add value and support  
9 the growth of energy across this nation in all  
10 sectors. It's important from every aspect of our  
11 daily lives.

12 MODERATOR KELLEY: Thanks, Ron.  
13 Steve?

14 MR. SHEPHERD: I would just have to go  
15 back and say housing also because, not only for  
16 the students to be trained or people coming in  
17 from all over the country, but North Dakotans  
18 also.

19 MODERATOR KELLEY: Thank you.  
20 Dave?

21 MR. CLARK: Well, I guess my pitch would  
22 be -- and this has been mentioned -- but the

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1 reinvestment in the Bakken. And, you know, we've  
2 been successful with some Federal grant  
3 applications, having those funds made available  
4 even if it's in a competitive, sort of,  
5 environment. It's just super beneficial. We're  
6 not able to provide the level of skilled training  
7 and education that we do without some external  
8 support to deliver that. And so just to have  
9 those resources remain available and, if possible,  
10 to increase would be important.

11 MODERATOR KELLEY: Thank you, Dave.

12 So, with that, I'd like to thank our  
13 distinguished guests here today. Please join me  
14 in thanking them.

15 (Applause.)

16 MODERATOR KELLEY: So at this point, we  
17 have a break for lunch. Thanks to Bismarck State  
18 College for providing lunch here today. The lunch  
19 will be served over here on this side. We will  
20 get started promptly at 1:00 with the remarks by  
21 our elected and cabinet officials. Thank you.

22 (Lunch break taken at 12:07 p.m.)

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1           MODERATOR KELLEY: Good afternoon. I  
2 just want to remind everyone that if you'd like to  
3 provide your comments, please do so at the front  
4 table. Please indicate in the sign-in sheet that  
5 you'd like to provide comments. And thank you all  
6 for showing up. This is a great crowd we have  
7 here today. So we have a great afternoon. Hope  
8 everyone is ready for this.

9           This afternoon, I'd like to introduce  
10 Melanie Kenderdine. In July 2014, Ms. Kenderdine  
11 was named one of the top five women in Washington  
12 shaping energy policy by the National Journal.  
13 Melanie Kenderdine is a special advisor to  
14 Secretary Moniz and Director, DOE Office of Energy  
15 Policy and Systems Analyst. Ms. Kenderdine will  
16 introduce our next speakers.

17           MS. KENDERDINE: Thank you. Thank you  
18 all very much for coming. This is, outside of one  
19 we had in Washington, D.C., the largest group of  
20 participants that we've had at any of these QER  
21 meetings, I believe -- (applause) -- this is  
22 great. Thank you.

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1           And I think this is number 9. We just  
2 came from number 8 in Chicago. We are doing  
3 outreach for the Quadrennial Energy Review, which  
4 my office is doing the analytical work for. And  
5 this is number 9. It is -- we're doing several  
6 angiographic meetings across the country to get  
7 input into the QER. These have all been terrific.  
8 We look forward to hearing from you today. And  
9 we'll hear more about the Quadrennial Energy  
10 Review from other speakers: Secretary Foxx and  
11 Secretary Moniz and Dr. Holdren here.

12           I want to introduce you to the Governor,  
13 Jack Dalrymple. He is -- you have his bio. The  
14 bios of all of the panelists are available for  
15 you, and I'm not going to read them or read much  
16 of anything out of those bios because we have a  
17 lot of panelists here today.

18           Two things I would note -- that I notice  
19 when I read the Governor's bio, that North Dakota,  
20 under his leadership, has been ranked the best-run  
21 state in America. I think that's terrific.

22           (Applause.)

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1 MS. KENDERDINE: And his strong  
2 commitment to responsible oil drilling and that's  
3 in part what we're here to talk about today.

4 So, Governor.

5 GOVERNOR DALRYMPLE: Melanie, thank you  
6 very much and thank you for including me in this  
7 Quadrennial Energy Review. This is a very unusual  
8 format for me. I'm not exactly sure how to act,  
9 but I guess in the absence of knowing any better,  
10 I'm just going to say whatever I think about  
11 what's going on in energy in my state, and I  
12 consider it a great opportunity.

13 To the Secretaries and to our  
14 Congressional delegation and other distinguished  
15 members of this Administration, welcome to  
16 Bismarck and welcome to North Dakota. We are  
17 truly honored to have you come here in person, and  
18 we're honored to have Bismarck, North Dakota  
19 chosen as one of the locations for this  
20 interesting event.

21 I think I have a reputation, maybe a bad  
22 reputation, for actually going into the content

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1 right away. I'm sorry about that. I'm not going  
2 to give you any thrills whatsoever. I want to  
3 bring up a number of topics while I have the  
4 opportunity.

5           One of the things that we have worked on  
6 in just the last couple of days is this whole  
7 question of whether Bakken oil is as safe as it  
8 can be when it goes into a railcar or whether it  
9 goes into a pipeline.

10           Now, we understand that this is only one  
11 piece of a very big picture of how to improve  
12 safety in the transportation of Bakken crude oil,  
13 or any crude oil for that matter, but it is one  
14 thing that our State Industrial Commission feels  
15 that it can have a bearing on.

16           We had a meeting two days ago of the  
17 Industrial Commission. We discussed the  
18 opportunity for conditioning oil before it is  
19 stored and loaded. We received a report from  
20 Turner, Mason that indicated that Bakken oil is a  
21 very consistent and very specific level of  
22 volatility. It is not different from other light,

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1 sweet crude oils.

2           But we focused on the things that we can  
3 do as a state. And we have decided to call a  
4 hearing, probably within the next month, to seek  
5 input on conditioning crude oil before it's stored  
6 and loaded. And that will include the discussion  
7 of heater-treater separators, their capacity,  
8 their specifications. We will talk specifically  
9 about required temperature levels for that  
10 conditioning. We will talk specifically about the  
11 time of stagnation in a tank, which can continue  
12 to lower volatility. And ultimately, we will seek  
13 to establish some standards within our oil and gas  
14 division for this process. And then we will  
15 proceed to determine how we can monitor that  
16 process.

17           This is one thing that we can do as a  
18 state, and I think it's an important thing. To be  
19 able to say to people in the public that we have  
20 done everything that we can feasibly do to reduce  
21 the volatility of this crude oil before it is  
22 transported.

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1           On the subject of railcar safety,  
2 there's been a lot going on. Of course, the  
3 volatility as it relates to railcars is the real  
4 topic. We are curious why the recent studies from  
5 the Federal Government have referred specifically  
6 to Bakken crude oil. We think it is important to  
7 classify crude oil by measurable characteristics  
8 like API gravity, vapor pressure, initial boiling  
9 point, and not simply classify it by geographic  
10 source.

11           The proposed rulemaking that has come  
12 forward from DOT regarding safe transportation of  
13 crude oil by rail are rules that we would like to  
14 understand better. It does involve the key areas  
15 of replacement of cars, retrofitting of cars, rail  
16 speeds, but we are still interested in talking  
17 with DOT about how we as a state can be working  
18 with the railroad and working with FEMSA to come  
19 up with some practical steps that we can undertake  
20 immediately in the state of North Dakota to make  
21 progress and not wait any longer to go to work on  
22 this issue.

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1           A third topic is the opportunity for  
2 value-added enterprises involving the use of  
3 natural gas and crude oil. We have looked into  
4 the possibility of loan guarantee from the  
5 Department of Energy for a large nitrogen  
6 fertilizer plant to be located at Spiritwood,  
7 North Dakota. We believe that by taking flared  
8 gas, which is abundant in North Dakota, and  
9 converting into valuable products, we can directly  
10 create a win-win situation for energy development.

11           We also have an opportunity to convert  
12 ethane from flared gas into polyethylene products  
13 and create a tremendous economic development  
14 outcome.

15           All of that, we feel, if done correctly  
16 and targeting the actual flared gas as the raw  
17 material, is very much in the spirit of what the  
18 Department of Energy is trying to accomplish.

19           Finally -- well, maybe not finally.  
20 Also, in the area of pipelines, we are committed  
21 as a state to promoting the development of more  
22 pipeline capacity as rapidly as possible. We have

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1 gone from a capacity a few years ago of 250,000  
2 barrels per day to today about 800,000 barrels a  
3 day. And by the end of 2016, if all the projects  
4 remain on schedule, we will achieve 1.4 million  
5 barrels per day of pipeline capacity, which is  
6 more than our current production.

7           We think pipelines is the way to go. We  
8 think they need to be promoted. We think they  
9 need to be supported in every way possible. This  
10 is the way to long-term move large quantities of  
11 crude oil to our nation's refineries.

12           And I would simply say that if there's  
13 anything that the Federal agencies can do to help  
14 us move pipeline projects forward, across other  
15 states, through other jurisdictions, perhaps down  
16 energy corridors that involve more than one  
17 utility, we would ask you to help us with that.

18           In North Dakota, we think we can get  
19 these projects built pretty quickly, but we do  
20 have to cross other states and that becomes a  
21 bigger challenge.

22           I also want to bring up renewable fuels.

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1 We think that we need to bring forward E15. We  
2 are, of course, an agricultural state, but more  
3 than that, we think that the blended fuel option  
4 is one of the tools that we need to pursue.

5 We currently have emerging a surplus of  
6 corn in the United States. And this old argument  
7 about how there isn't corn for everybody is no  
8 longer true. Corn is \$2.50 a bushel. We've got  
9 more than enough corn for all the food supplies  
10 and feed supplies that you can name, plus a  
11 generous supply for our ethanol plants. And this  
12 product we know will function well in engines and  
13 that we need to move that forward. There will be  
14 no increase in the expansion of renewable fuels  
15 until we authorize a stronger blend.

16 All of that blended fuel area is a  
17 tremendous area of opportunity. We can go into  
18 many other potential blending situations that  
19 would be even more effective.

20 The people that I talk to who understand  
21 these things well, tell me that based on their  
22 recent research, the most effective fuel of all

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1 for American farmers and probably American  
2 contractors would be a blend of 76 percent diesel  
3 fuel, 12 percent ethanol, and 12 percent biodiesel  
4 or soy diesel fuel.

5           Those combinations have scientific  
6 benefits. One de-gums the other. One increases  
7 the other's octane. One reduces the jelling  
8 issues. You put these products together and you  
9 get more than the sum of the total. That's  
10 something the Department of Energy could help us  
11 with: looking at extensive testing and evaluation  
12 of combinations of fuels.

13           And finally, it would be wrong if I did  
14 not mention CO2. We believe that a commitment to  
15 the reduction of CO2 in the atmosphere is right  
16 and correct. But in the current situation with  
17 our coal industry in North Dakota, we are asking  
18 what is the technology that we are expected to  
19 bring forward to comply with the proposed Clean  
20 Coal Standards for the future. What technology is  
21 it that is economically feasible and will help us  
22 get that job done?

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1           So thank you for the opportunity.  
2 Looking forward to visiting with everybody later.  
3 Thank you.

4           (Applause.)

5           MS. KENDERDINE: Thank you, Governor.

6           Next, I would like to introduce to you  
7 Dr. John Holdren. Dr. Holdren is a science  
8 advisor to the President. He runs the Office of  
9 Science and Technology policy. He is also the co-  
10 chair of the President's Council of Advisors on  
11 Science and Technology. That is the (inaudible)  
12 recommended in November of 2010 that the  
13 Department of Energy and the Federal Government do  
14 a Quadrennial Energy Review. There are many  
15 Federal equities across the agencies in energy,  
16 and so the recommendation was that the QER be run  
17 out of the White House. And that recommendation  
18 was accepted by President Obama.

19           He put out a Presidential Memorandum on  
20 January 9th of this year directing the Federal  
21 Government to do a Quadrennial Energy Review. And  
22 Dr. Holdren and Dan Utech with the Domestic Policy

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1 Council won the Task Force for the QER. And my  
2 office at the Department of Energy does the  
3 analytical work and manages the interagency  
4 process for that. Dr. Holdren is going to talk to  
5 you and give you a little more context about what  
6 we're actually trying to do and achieve with the  
7 QER.

8 DR. HOLDREN: Well, thank you very much,  
9 Melanie.

10 It seems to me that it's a remarkable  
11 array of state and local decision makers and  
12 opinion leaders assembled here, and I mean not  
13 just those up here in front, but those of you out  
14 in the audience, is a testimony to the seriousness  
15 with which the Quadrennial Energy Review process  
16 is being taken, both in Washington, D.C. and in  
17 North Dakota.

18 And I would be remiss if I didn't convey  
19 to this whole group the greetings of President  
20 Obama, who I can assure you is watching this  
21 process very closely.

22 President Obama's energy vision is one

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1 where affordable, clean, and secure energy  
2 contributes to a multiplicity of national goals.  
3 One set of those goals, of course, is economic,  
4 economic growth, job creation, international  
5 competitiveness, balance of payments. Another set  
6 of those goals involves protecting the  
7 environment. Most challenging probably, the  
8 challenge of protecting the global climate. And  
9 yet another set of goals involve protecting U.S.  
10 national and homeland security.

11           Achieving that vision and those goals  
12 requires a comprehensive and integrated energy  
13 strategy. And that's what the QER is designed to  
14 help deliver.

15           The QER process is, in fact, built on  
16 three pillars. One is strong technical analysis  
17 led by Melanie Kenderdine's group at the  
18 Department of Energy.

19           A second pillar is strong contributions  
20 and interactions among the many other Federal  
21 agencies that have stakes and responsibilities in  
22 the energy domain and interagency process, that as

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1 Melanie has mentioned, I co-chair from the White  
2 House.

3           And the third pillar is active  
4 engagement of external stakeholders. And that, of  
5 course, is what this series of regional  
6 stakeholder meetings, of which is the ninth, is  
7 all about.

8           Those of us who are charged with  
9 formulating the ultimate QER document expect to  
10 learn a lot from the discussion here today. We've  
11 learned a lot from the previous eight stakeholder  
12 engagement meetings, and I know that this will be  
13 no different.

14           As you know already, I think, the focus  
15 for the QER in its first year is the Nation's  
16 infrastructure for transporting, transmitting,  
17 storing, and delivering energy.

18           And I want to stress, by the way, that  
19 Quadrennial does not mean that something happens  
20 only every four years. We are anticipating a  
21 moving spotlight process where every year the  
22 focus of the QER is on a different set of the

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1 interlocking pieces of the energy puzzle. The QER  
2 in that sense is a continuous process, not a  
3 periodic process.

4           The infrastructure that we're focused on  
5 this year, the infrastructure for the  
6 transportation, storage, distribution of energy is  
7 being subjected to rapid changes and new stresses  
8 from a number of powerful forces.

9           The first of those is the changing  
10 physical flow of energy commodities in the United  
11 States. Our transportation infrastructure has  
12 evolved in part in response to past patterns of  
13 where we've produced the raw materials for our  
14 energy system and where they've been consumed.

15           Those patterns and flows have changed  
16 rapidly in the past few years, and as you know,  
17 North Dakota and the Bakken have been big parts of  
18 that. This is all part of a larger picture in  
19 which the development of new sources of energy and  
20 the introduction of new energy technologies have  
21 shifted demands and patterns of energy supply and  
22 energy transport.

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1           Second set of factors is that U.S.  
2 population growth and regional migration trends  
3 have caused concurrent shifts in the shipment of  
4 many non-energy goods by highway, rail, and  
5 waterways. Energy uses of our national  
6 transportation infrastructure have to compete with  
7 these other demands for the same infrastructure.

8           And a third factor is the new set of  
9 demands and challenges that are being placed on  
10 our transportation system by our growing concerns  
11 about global climate change. That includes not  
12 only policies aimed at mitigating transportations,  
13 greenhouse gas emissions and energy consumption,  
14 but also policies and practices for adapting the  
15 transportation system to changes in patterns of  
16 temperature, patterns of precipitation, flooding,  
17 storm surges, wind bloatings, and more, that are  
18 already occurring and are expected to continue to  
19 occur in the future as a result of climate change.

20           An over-arching issue that adds  
21 complexity to this whole domain is the diversity  
22 of decision makers who have to deal with it.

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1 State transportation planners, railroad people,  
2 barge operators, trucking firms, oil and gas  
3 producers, refineries, farmers and ethanol  
4 manufactures, electric power plant operators,  
5 industrial consumers, environmental regulators;  
6 only a partial list of the stakeholders involved  
7 in this matter. They all play important roles in  
8 this domain.

9           And while those diverse stakeholders  
10 often act independently and sometimes have goals  
11 that are in competition with each other, the  
12 impacts of the individual decisions they make are  
13 all intertwined.

14           So this is a big challenge. And given  
15 this exceptionally complex and exceptionally  
16 coupled challenge of our energy and transportation  
17 systems, I think it's particularly important that  
18 we take a clear look at where the most urgent  
19 questions in each of the major modes of  
20 transportation are. That will be the task of some  
21 of the subsequent panels here today, and again, we  
22 expect to learn a lot from them.

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1 I'm pleased that key members of agency  
2 and White House staffs are here, folks who are  
3 working on the QER, and will be able to learn  
4 firsthand today from the distinguished experts  
5 that will be covering those topics. I'm certainly  
6 looking forward to hearing what all of the  
7 speakers have to say.

8 With that, I thank you and I turn the  
9 podium back to Melanie Kenderdine.

10 (Applause.)

11 MS. KENDERDINE: Thanks, John.

12 Next, we're going to hear from Janice  
13 Schneider. Janice is an Assistant Secretary for  
14 Land and Minerals Management at the Department of  
15 Interior. Janice has a long career in responsible  
16 infrastructure siting and development, both in  
17 private legal practice and at the Interior  
18 Department. Interior Department, we mentioned  
19 that this is a significant interagency effort.  
20 Interior Department is one of the first places we  
21 went when we started working on the QER to consult  
22 with the other agencies.

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1           So, Janice.

2           MS. SCHNEIDER: Thank you and good  
3 afternoon. I'm pleased to have the opportunity to  
4 be here today, be up in North Dakota.

5           I spent some time touring portions of  
6 the state yesterday. I had the opportunity to go  
7 up to the Fort Berthold Indian Reservation; visit  
8 a drill rig, see their operations, as well as a  
9 production facility; and a new train depot. So  
10 it's been a very, very good visit for me, very  
11 productive visit for me as well.

12           I'm pleased to have the opportunity to  
13 share with you what the Department is doing to  
14 support, balance development of oil and gas  
15 resources in the Bakken region. Obviously, as we  
16 all know, the technological advances have really  
17 unlocked an incredible opportunity here in North  
18 Dakota.

19           The sharp -- well, for example, just in  
20 the Williston Basin alone, in the last two years  
21 from 2010 to 2012, we've seen a doubling of the  
22 production for oil and gas on an annual basis, and

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1 that's pretty amazing.

2           These sharp increases in production are  
3 bringing their share of challenges, including to  
4 the Interior Department and its agencies. This is  
5 -- you know, across the board from building the  
6 infrastructure necessary -- and we're going to  
7 talk about that a little bit more -- but also to,  
8 for us, retaining the professionals needed to get  
9 the work done in a timely manner in a very, very  
10 highly competitive market.

11           So let me just discuss briefly with you  
12 what we're doing.

13           The Bureau of Land Management here in  
14 North Dakota manages less than 60,000 surface  
15 acres of public land. But we're responsible for  
16 managing oil and gas resources for over almost 2  
17 million acres of federal and leased Indian trust  
18 subsurface in the state, which is a pretty  
19 significant amount.

20           What that means is several things.

21           First, BLM plays a critical role in  
22 leasing and approving permits for applications to

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1 drill new wells. The BLM also plays a critical  
2 role in facilitating the transportation of oil and  
3 gas produced from the Bakken. This is because  
4 BLM's responsible for issuing right-of-way grants  
5 authorizing pipelines projects that involve two or  
6 more Federal agencies for oil and gas, even if  
7 most of the surface is privately owned.

8           So, for example, what that means is if  
9 the pipeline crosses Forest Service land or BLM  
10 land -- a small portion of it -- but also needs a  
11 U.S. Army Corps of Engineers permit, BLM becomes  
12 the right-of-way permitting agency.

13           Now, the North Dakota field office has  
14 already authorized the rights-of-way for over 160  
15 miles of pipeline associated with the Bakken link  
16 and the CenterPoint Energy Project -- projects, I  
17 should say -- and these projects are already  
18 estimated to bring over about 80,000 barrels per  
19 day with additional expansion capabilities.

20           Currently, in addition to these  
21 projects, the BLM is also evaluating others,  
22 representing about another 75 miles of pipeline.

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1           Now, as the public briefing paper for  
2 this session discusses, the lack of sufficient  
3 pipeline capacity in the area has really led to  
4 high levels of natural gas being flared at well  
5 sites. Results have significant -- are  
6 significant in terms of impacts, as well as lost  
7 revenues.

8           So in order for us to be successful in  
9 developing this infrastructure, there are a number  
10 of things that I believe that we need to do  
11 together.

12           First, we must recognize and respect the  
13 interest and concerns of American Indian Tribes on  
14 a government-to-government basis, which is why  
15 Tribal consultation plays such a vital role in our  
16 pipeline work in particular in the Bakken region,  
17 as well as elsewhere in the country.

18           Here, the BLM consults with 18 different  
19 Federally-recognized Indian Tribes, and we work  
20 hard to try to find solutions to the issue that  
21 arise when we're dealing with projects of this  
22 sort of scope and complexity.

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1           Second, all of this work in the boom has  
2 created -- all this work has really created  
3 manpower and staffing issues for us, and it's an  
4 enormous challenge in this economically  
5 competitive environment. The budget for the  
6 Bureau's Oil and Gas Program has declined 20  
7 percent since 2007, when accounting for inflation,  
8 and obviously, industry is able to pay higher  
9 salaries.

10           We very much appreciate the leadership  
11 of the North Dakota delegation to expand the pilot  
12 office project to include North Dakota recently,  
13 and also to provide additional resources to us to  
14 process the necessary oil and gas authorizations  
15 to continue to move product to market. And we're  
16 looking forward to working with Congress to expand  
17 that law which expires 2015.

18           In the meantime, we've added six new  
19 positions to the North Dakota Field Office, and  
20 we're working as hard as we can to fill those  
21 jobs. We're using all of the available human  
22 resource tools that we have in order to approve

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1 and have staffing here on the ground at the  
2 appropriate levels. That includes relocation and  
3 retention incentives, special pay and locality pay  
4 issues, student loan repayment. We're even  
5 building housing in order to provide for temporary  
6 quarters because that's an issue we've identified  
7 as being an impediment or a challenge to bringing  
8 folks on.

9 We also obviously need to place a high  
10 priority on our inspection and enforcement of  
11 wells, and, you know, our goal there is to be  
12 responsive to industry requests while ensuring  
13 safe and responsible development and meeting  
14 foundational safety and accounting  
15 responsibilities for oil and gas program.

16 Third, we need to work together. You  
17 know, the opportunities that we have working with  
18 the state of North Dakota on a host of issues, as  
19 well as with elected officials, partnering  
20 agencies, industry and other stakeholders are  
21 absolutely critical. You know, organizations like  
22 the North Dakota Petroleum Council, the Bakken

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1 Federal Executive Working Group is the best way  
2 that we have to fully realize the opportunities  
3 presented to us.

4           So I want to close by saying the  
5 Department really appreciates the opportunity to  
6 be part of the Task Force. It's important to come  
7 up, visit, listen, meet stakeholders, and share,  
8 you know, what your views are with us. I'm  
9 looking forward to meeting folks in person. I'd  
10 be happy to take any questions at the end of the  
11 session. Thank you.

12           (Applause.)

13           MS. KENDERDINEL: Next, we're going to  
14 hear from Congressman Kevin Cramer. I believe  
15 he's in his first term. He's on a couple of  
16 important House committees -- the Natural  
17 Resources Committee and the Science Committee --  
18 two committees I worked with for a long time on  
19 the Hill.

20           Also, he's co-chair of the Northern  
21 Border Caucus. And I should mention, in the QER,  
22 we are looking at North American energy

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1 infrastructure issues, and the Secretary will be  
2 going up to Ottawa in September to meet with the  
3 Canadian Government on and representatives there  
4 on the QER, and so we'd love to talk with you  
5 further about that. Thank you.

6 CONGRESSMAN CRAMER: Thank you very much  
7 and welcome to our state. It's so good to see our  
8 Washington friends come to our turf once in a  
9 while. We're kinder and gentler, I assure you.

10 I have to say, first of all, a very  
11 special welcome to the two Cabinet Secretaries.  
12 They are both gentlemen that I've had the  
13 opportunity to work rather closely with in two  
14 different ways.

15 First, my friend, Secretary Foxx, and he  
16 is a friend. During special challenges as we've  
17 had with regard to rail, he has been very  
18 attentive, he's been very accessible, and he's  
19 been very generous with his time and with his  
20 ears, and we've worked closely on that, along with  
21 he and his team, and look forward to working even  
22 more closely going forward. So welcome, my

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1 friend.

2           Secretary Moniz, I've had the  
3 opportunity in the Science and Technology  
4 Committee to cross-examine him, I guess as we say,  
5 a couple of times, and as we look at the research  
6 and development strategies and appropriations for  
7 the Department.

8           And oftentimes, when you're getting into  
9 the nitty-gritty, the details, if you will, of  
10 research and development and technology, it's not  
11 just not the Secretary who has all the answers.  
12 You often get a very smart walk at some other  
13 level. But in the case of the Department of  
14 Energy, it's the Secretary himself who steps up.

15           And what I've appreciated about  
16 Secretary Moniz is not only do you have a  
17 wonderful, broad knowledge of the Department and  
18 its strategies, but he has very specific technical  
19 knowledge of North Dakota and that's -- you know,  
20 you do like sort of stump of the Cabinet member  
21 when they're in front of you, and he's rather  
22 tough to stump. Although, when he's comparing the

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1 EERC, you know, to his old stomping grounds, I  
2 don't know, it's kind of like a football game.

3 Thank you both for being here, as well  
4 as other guests.

5 I do have a very simple solution,  
6 however, for the President and the Administration  
7 with regard to energy policy in this country.  
8 Turn it over to North Dakota, and it's a much  
9 easier job than what we're going through. Try to  
10 convince you to do it the right way, just do it  
11 our way and it will go very well.

12 I thought I'd just take a couple minutes  
13 on a couple of specific issues.

14 One, I think we need to talk a little  
15 bit about legislation. Obviously, we're  
16 legislators, the Senators and I. And we passed  
17 some pretty good stuff, and I appreciate, Janice,  
18 your reference to the pilot project and the  
19 expansion. That was the first bill I introduced  
20 in Congress, and I'm proud to say and pleased to  
21 say I have the pen that President Obama signed the  
22 bill with. Senators Hooven and Heitkamp, Senator

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1 Hooven introduced and Senator Heitkamp their  
2 version in the Senate. It's always nice when the  
3 two Chambers come together.

4           But I think it's an important example of  
5 what can be done when you look for winners on all  
6 sides of an issue rather than winners and losers.  
7 What this bill simply does is it streamlines the  
8 permitting process on Federal lands in a way that  
9 brings multiple agencies under the same roof so  
10 that you not only have efficiencies rather than,  
11 you know, one agency doing its work and then the  
12 next one and shipping it out to the next one, but  
13 you not only have the efficiencies of everybody  
14 under one roof, but you have the dynamics of  
15 synergy as well and creativity.

16           And when we looked at how that had been  
17 done in other places and what the results, here's  
18 what we found. We found that by doing something  
19 as simple as putting everybody together, you could  
20 reduce the period -- the permitting processing  
21 period by 25 percent. But, as I could go over and  
22 tell my friends Ed Markey and Russ Hoke over on

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1 the other side of the Natural Resources Committee,  
2 we also increased inspections by 25 percent.  
3 That's win-win. That's what oftentimes we don't  
4 do very well in Washington is look for ways for  
5 everybody to win. There doesn't always have to be  
6 a loser. So thank you for bringing that up.

7 We passed some other things on the  
8 energy side together, the two Chambers, the Bureau  
9 of Reclamation Small Conduit Hydropower  
10 Development and Rural Jobs Act, you might recall.

11 But one of the bills I thought we should  
12 talk about just a little bit given the first panel  
13 today and given the challenges of workforce in  
14 North Dakota. The House passed well over a year  
15 ago (inaudible) Skills Act, where we tried to work  
16 to bring many of the complicated workforce  
17 development and the career and technical education  
18 programs and, wow, we took 30 some and reduced  
19 them to one. The Senate took one and made it 12.  
20 That's pretty good. That's pretty good. And  
21 together, we passed a law.

22 We passed a bill that the Senators --

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1 or, that the President signed. And today,  
2 hopefully, in this time when we have now, what, 67  
3 straight months of unemployment over 6 percent,  
4 the lowest participation in the workforce since  
5 1978, by our population of time when we're  
6 wondering what to do about 11 or 12 million  
7 undocumented workers, we have at least the  
8 foundation now of an education program that can  
9 bring education and make it relevant to the  
10 economy.

11 So those are some success stories.

12 That said, we have some things that are  
13 still in front of the Senate that the House has  
14 passed that I think would be very help to today's  
15 discussion.

16 I'm going to speak specifically to the  
17 Natural Gas Pipeline Permitting Reform Act, which  
18 sets permit deadlines for FERC and other agencies.

19 The North American Energy Infrastructure  
20 Act that creates more modern and efficient cross  
21 border approval process, we know we need that.

22 We have the Responsibly and

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1 Professionally Invigorating Development Act,  
2 otherwise know as RAPID, which streamlines current  
3 environmental permitting approval processes for  
4 energy infrastructure.

5 Of course, the Northern Route Approval  
6 Act, which deems the Keystone Pipeline approved,  
7 and we'd like to see the Senate take that up for a  
8 vote.

9 The Domestic Prosperity and Global  
10 Freedom Act, which directs the Department of  
11 Energy to expedite approval of liquid natural gas.  
12 We'd like to see them coming one at a time,  
13 Secretary, just faster. As we see what's going on  
14 in the world, we think we could put ourselves in  
15 an important position.

16 Certainly, we have a number of  
17 endangered species bills I won't get into  
18 specifically.

19 But then there's Electricity Security  
20 and Affordability Act, which we've passed in the  
21 House. Senator Hooven, I know is a co-sponsor in  
22 the Senate on the same bill. And it simply

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1 ensures that the EPA Greenhouse Gas Rules for new  
2 fossil fuel plants can be achieved and existing  
3 plant rules approved by Congress.

4           And we've had the opportunity -- I've  
5 had the opportunity to question the Secretary and  
6 the Science Committee specifically on. And, of  
7 course, those Greenhouse Gas rules, and I know  
8 it's not directly put into transportation, but  
9 I've always appreciated his tremendous  
10 understanding of the success of the Synfuels Plant  
11 -- the Great Plains Synfuels Plant where I know  
12 he's going to tour later today -- its ability to  
13 capture carbon and then use that carbon, you know,  
14 to enhance oil recovery in Alberta.

15           I love the idea of existing -- of new  
16 plants being able to capture CO2. I hope we can  
17 get to that point where it's efficient and  
18 effective and economically feasible. And then to  
19 use it to enhance oil recovery. And as I told him  
20 in the Committee, the idea that there's a  
21 technology some day that will extend the life of a  
22 coal mine and the life of an oil field is a noble

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1 goal for sure. But let's make sure we don't get  
2 the rule ahead of the technology.

3 A number of other issues that I'll hope  
4 that maybe get into later in the Q&A, but I thank  
5 you for the opportunity to share, and thank you  
6 for the opportunity to serve.

7 (Applause.)

8 MS. KENDERDINE: Thank you so much,  
9 Congressman.

10 Next, I would like to introduce Senator  
11 Heitkamp. She is a Junior Senator from North  
12 Dakota on the Ag, Banking and Homeland Security  
13 Committees. She was a director -- special  
14 interest to me and others at the Department of  
15 Energy of the Dakota Gasification Synfuels Plant.  
16 I looked her up on the internet. Words that kept  
17 coming up were straight talking, independent, all  
18 aspirational attributes from me. She's a tireless  
19 advocate of all of the above strategy energy  
20 policy.

21 And, Senator Heitkamp.

22 SENATOR HEITKAMP: Thank you so much.

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1 And thank you to both Secretaries, and thank you  
2 to the Administration to bringing this effort here  
3 to North Dakota. Most of the audience knows that  
4 they weren't on the initial come-to list. I think  
5 you moved pretty quickly to add them to the list  
6 when you look at what North Dakota is. And I want  
7 to be brief in my comments because we want time  
8 for the Secretaries to talk.

9           But look at North Dakota. Biofuels.  
10 Wind. Potential for huge geothermal. Lignite  
11 generation from Lignite hole to electricity and  
12 gasification. One of a kind in this country.  
13 Sequestration behind it. Using enhanced oil  
14 recovery. Huge power generation from Lignite.  
15 Second largest producer of crude oil. And  
16 potentially one of the great production states for  
17 natural gas once we build up the infrastructure.

18           We truly do all of the above here in  
19 North Dakota, and we try and achieve that balance  
20 on how we do all of the above.

21           And I thought about what I was going to  
22 say today and you think about where we were in

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1 1973, 1974, 1975. We were sitting around saying,  
2 it's done. We've got to go beyond fossil fuels.  
3 We built the gasification plant with the idea of  
4 coal's abundant, let's liquefy it, let's gasify  
5 it, let's use coal to fill those transportation  
6 gaps and that generation gap.

7           And then shale came. And the shale  
8 development's changed how we think about oil and  
9 gas development in our country. We're now North  
10 America. And one of the comments I am going to  
11 give is how we need to maybe stop thinking about  
12 just the United States and start thinking about  
13 North America and the potential of North America.

14           But you think about it, and I will tell  
15 you this. As smart as we are today, and as clever  
16 as we think we are, we don't know what the  
17 production of the future's going to be. We don't  
18 know what the next generation of fuel source is  
19 going to be. We don't know if we're going to see  
20 batteries be developed that will absolutely will  
21 be miniaturized and will absolutely change the  
22 landscape for renewables. We don't know if we're

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1 going to see some amazing developments in fusion  
2 and vision and whatever it could be.

3           But one thing we do know is when we  
4 develop that energy, we need to move it. And the  
5 single biggest challenge in America today to an  
6 energy policy that's going to make sense is moving  
7 energy. And that's why I applaud the Secretary  
8 today -- both Secretaries for focusing this first  
9 round of discussion about energy policy on  
10 transportation of energy. And this is where I'm  
11 going to talk about North America.

12           I'm going to talk about North America  
13 from the standpoint that it all needs to be linked  
14 together. We know up here -- and it's important  
15 that you be here -- that we don't really see a  
16 boundary or a border with Canada. You know, it's  
17 pretty seamless. And we go north, and we go  
18 south, and we move up, and we move down, the gas  
19 plant sends their CO2 up to the wavering field,  
20 longstanding relationship. We've got technologies  
21 being developed up and that's power that can be  
22 deployed down here with Lignite, the same kind of

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1 resource development.

2           We've got a relationship -- a growing  
3 relationship with Mexico. I don't know if you've  
4 been following this. They changed their  
5 constitution because guess what they have in  
6 Mexico? They have shale oil, and they want part  
7 of what we're doing. And so they're going to  
8 build out that resource and continue to build  
9 offshore.

10           And do you know what Mexico wants to do  
11 with their resource? They want to send it to  
12 Central America because as the President  
13 (inaudible) told me, natural gas prices are \$25 an  
14 MCF in Mexico -- Central America, not Mexico.  
15 What does that do to destabilize the whole portion  
16 of an economy? And we see what happens when a  
17 portion of countries in our hemisphere destabilize  
18 creating huge problems.

19           And so how do we move this energy? How  
20 do we get rid of the nimbi and not in my back  
21 yard, and we don't need to move it, we're going to  
22 use transportation as a tool to stop the fuel

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1 source. And most of you know, I'm probably  
2 referring to Keystone Pipeline.

3           Keystone Pipeline is one of those things  
4 that if you really analyze a balance on carbon or  
5 you analyze kind of how you think about it, it has  
6 so little to do with carbon and so much to do with  
7 a disagreement about what should happen with the  
8 oil sands up north of Calgary.

9           And so here we are using the  
10 transportation of energy as a way to control the  
11 fuel source, and that needs to end. We need to  
12 build smarter grids for electricity. We need to  
13 build more resilient and reliable grids. And  
14 those grids need to be protected against what I  
15 can only tell you is a threat of cyber terrorism  
16 or cyber attack that will cripple this country if  
17 we don't pay attention. And I know that the  
18 industry and utility industry is paying attention.

19           But these are things that need to  
20 concern -- need to be involved and concerning in  
21 an energy policy. The State needs to look at  
22 cyber attacks. Taking a look at transportation as

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1 it relates to pipelines. We've all seen the  
2 difficulty, and I think Kevin greatly outlined a  
3 lot of what those difficulties are. But we need  
4 to build more pipeline capacity, certainly out of  
5 North Dakota.

6           Look at the Northeast. Getting natural  
7 gas to the Northeast will stabilize their energy  
8 crisis. It will make their life so much better,  
9 but yet we can't seem to take that next step. And  
10 we've got to get over the idea that these are  
11 tools or these are restrictions that we can put on  
12 the energy industry.

13           The last comment that I'll make because  
14 I believe it. I think one of the policy  
15 directions that this country absolutely must  
16 pursue is a policy of exportation, not only of  
17 natural gas, but also of crude oil. Also of crude  
18 oil. We've had a policy where we don't export  
19 crude oil. But you know what you can export? You  
20 can export gasoline. You can export refined  
21 products.

22           So there's a lot of common sense in that

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1 kind of public policy, and it goes back to living  
2 the history of the '70s and not living the reality  
3 of today.

4           And so these are huge challenges that we  
5 have on our Congressional (inaudible), but natural  
6 gas -- the ability to export natural gas, the  
7 ability to export crude will help not only the  
8 markets in our country and continue this great  
9 production in our country by giving us access to  
10 markets, but it will help stabilize the world. It  
11 will be a form of soft power like we've never seen  
12 in global politics.

13           Think about it. North America being  
14 able to provide that energy resource that will  
15 stabilize the world, whether it's in Central  
16 America, or whether it's in the Ukraine, whether  
17 it is in Europe.

18           And so we have got to figure that out.  
19 And people think that one of the challenges is  
20 that, you know, people don't want to export  
21 natural gas because they want to prevent that  
22 industry from going out because it's fossil. The

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1 reality is that a lot of the opposition that we  
2 get is because they like low natural gas prices,  
3 because low natural gas prices determine fuel  
4 sources in generation electricity.

5           And so when you look at low natural gas  
6 prices, what you have is when you keep them  
7 artificially low, not letting them find markets,  
8 what you end up with is you end up with curbing  
9 production, which is very dangerous.

10           And, you know, I keep trying to tell  
11 people that you still have a huge advantage  
12 because it costs a lot of money to offshore  
13 natural gas. So, you know, one of the things that  
14 the people who plan on, or the companies who plan  
15 on exporting natural gas, one of the things they  
16 like is low natural gas prices, otherwise, it's  
17 not economic to export.

18           And I get this argument, but we have  
19 this great growth and advanced manufacturing, we  
20 have to keep gas prices low to keep them  
21 competitive. And I say, you know what, I deal  
22 with a lot of livestock producers, they like low

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1 corn prices. Right? I've never once suggested  
2 that we should stop the exportation of corn  
3 because we live in a global world, we live in a  
4 global market.

5           And so my suggestion really would be in  
6 transportation is figuring out a way to create a  
7 national policy on pipelines. Figure out a way to  
8 actually develop the consortium so that we aren't  
9 pitting one state against the other; we are  
10 creating a network, a system of networks so that  
11 we actually have a design on where we're going to  
12 move energy. And people understand when a  
13 pipeline comes through their state, that's  
14 essential to the economy of this country, that we  
15 continue to move that energy.

16           And so build out a national consensus on  
17 what we're going to do with pipeline systems.  
18 North Dakota's done it. It's a great example in a  
19 pipeline system.

20           And the other suggestion that I would  
21 have is don't think just about moving power that  
22 we generate in the United States of America. We

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1 need to think regionally, the same way our states  
2 think regionally.

3           And last, I would say, think about  
4 transporting our energy globally, because it's the  
5 global exportation that is going to help stabilize  
6 world, it's going to help stabilize the industry,  
7 and it's going to give us a market. And you have  
8 to do all this so you give us predictability.  
9 That's what this -- that's what most of the people  
10 out here want to know, is what's that policy going  
11 to look like, what are we going to do, and how can  
12 we deploy our resources in a predictable manner.

13           And so I want to thank you again,  
14 Secretary Moniz and Secretary Foxx, for coming to  
15 North Dakota. I think it's -- Secretary Foxx has  
16 been here probably more than what he'd like to be,  
17 but has been a great friend to North Dakota.

18           And Secretary Moniz is going to have a  
19 great day tomorrow taking a look at what we do in  
20 North Dakota, which is truly all of the above, and  
21 some of the greatest innovation in energy right  
22 here in our state.

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1 Thanks for all coming.

2 (Applause.)

3 MS. KENDERDINE: Thank you, Senator.

4 And we're running short on time, so I'm  
5 just going to introduce Senator Hooven, the Senior  
6 Senator from North Dakota. He's on the Energy  
7 Committee and he's going to keep this short so  
8 that we have time to take some questions from the  
9 audience.

10 SENATOR HOOVEN: Thank you. It's great  
11 to be here and thanks to so many of you for coming  
12 to this Quadrennial Energy Review. And I want to  
13 welcome both Secretary Foxx, and of course,  
14 Secretary Moniz.

15 And, you know, Secretary Moniz is a -- I  
16 think was the head of the Nuclear Physics  
17 Department at MIT. Is that right?

18 SECRETARY MONIZ: The whole Physics  
19 Department.

20 SENATOR HOOVEN: The whole Physics  
21 Department. Well, that's better yet. (Laughter.)  
22 And you know what they say, MIT's no BSC, but

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1 we're very pleased to have (applause) both  
2 Secretary Foxx, Secretary of Transportation, and  
3 Secretary Moniz, Secretary of Energy here. These  
4 are important jobs at an important time in our  
5 country, and so we're very pleased you're here.

6           And to Secretary Moniz, we look forward  
7 to taking you on an oil tour over to (inaudible)  
8 Coal, the only plant in the country, Dakota gas  
9 station company that actually captures CO2 and  
10 sequesters it for tertiary oil recovery. Only  
11 place in the country that does that. And you'll  
12 find when it comes to energy, in North Dakota, we  
13 do a lot of things that aren't being done in other  
14 places.

15           This region of the country really is the  
16 leader in energy, and in all types of energy. And  
17 that's the point I want to make. This country can  
18 be energy secure in five years. The United States  
19 can be energy secure or energy independent in five  
20 years.

21           What do I mean by that? I mean, we  
22 produce more energy than we consume. It's a

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1 global market. We all get that. But we will  
2 produce more energy than we consume. And working  
3 with Canada, as Heidi correctly said, North  
4 America, we can truly be energy secure, producing  
5 more energy than we consume. And producing it  
6 from all sources. And that's exactly what we do  
7 here in North Dakota.

8           The idea of a Quadrennial Energy Review  
9 is -- I mean, it's not a new concept. It's  
10 actually based on a military concept. It's  
11 something I included in legislation in 2011 in a  
12 bill called the Domestic Energy and Jobs Act. It  
13 was also proposed in the House.

14           I spoke with White House Advisor Heather  
15 Zichal in 2011 and said, hey, we should have this  
16 kind of planning as part of building a  
17 comprehensive energy plan. And that's why I'm  
18 pleased to see that the Administration is here in  
19 North Dakota doing this kind of planning as part  
20 of a comprehensive energy plan for our Nation.

21           I set that goal at the outset for a  
22 reason. Let's have a go, right. So if this is a

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1 planning process, QER, let's set a goal. Let's be  
2 energy -- a lot of people like to say energy  
3 independence. But in the energy world that sounds  
4 like, well, it's not a global market for energy.  
5 It is a global market, so that's why I use the  
6 term energy secure. But quite simply, producing  
7 far more energy than we consume.

8           That means jobs. That means economic  
9 growth, economic activity. That means national  
10 security for ourselves, and when we export LNG to  
11 Europe, for our allies. All these benefits. So  
12 let's set that goal as part of this QER.

13           Now, in North Dakota over the past  
14 decade, we've built a comprehensive energy plan.  
15 It's called EmPower North Dakota. EmPower North  
16 Dakota. We set out to produce energy from all  
17 sectors: renewable and traditional. Oil, gas,  
18 coal, biofuels, ethanol, biodiesel, biomass, wind.  
19 And we started at a time when energy companies  
20 weren't coming to North Dakota. When Governor  
21 Dollop and I started in 2000, more companies were  
22 leaving North Dakota. There were better places to

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1 make investments, and they were going other  
2 places.

3           So you've got to build the right kind of  
4 environment to encourage the kind of investment  
5 that will not only produce more energy, but deploy  
6 those new technologies that produce that energy  
7 and do it with better environmental stewardship.  
8 We've got to encourage that investment.

9           We worked hard to do it in this state,  
10 and we haven't done too bad. Today, we are the  
11 second largest oil-producing state in the Nation.  
12 Together with Texas, which is the largest oil-  
13 producing state, we produce more than 4 million  
14 barrels a day. That is over half of the 8 million  
15 barrels a day that this country produces  
16 domestically. At 8 million barrels a day, we now  
17 produce two-thirds domestically of our total oil  
18 consumptions. That is up dramatically and  
19 significantly from less than 50 percent just a few  
20 short years ago. So we're on our way, aren't we.

21           But here's another statistic. Oil  
22 production on private land has gone up 60 percent

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1 over that time period. Oil production on public  
2 lands has gone down 7 percent since 2009. So up  
3 40 percent in total since 2009 because we're up 60  
4 percent on private lands, and we're down 7 percent  
5 on public lands. Why is that? It's because of  
6 regulation and bottlenecks.

7           So the focus of this QER is  
8 infrastructure. We need infrastructure.

9           The Governor talked about needing  
10 infrastructure and building infrastructure here in  
11 this state. To become energy secure as a country  
12 within five years, we need to produce more energy,  
13 but we need to get that energy to market, so we  
14 cannot do it without the infrastructure.

15           So we need to address the regulation and  
16 we need to address the infrastructure in a way  
17 that encourages the investment that not only  
18 produces more energy, but also enables us to build  
19 the infrastructure of all kinds: transmission,  
20 pipelines, rail, roads, all of the above. We need  
21 regulatory certainty so companies like, oh, I  
22 don't know, maybe Burlington Northern Santa Fe can

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1 make investments in railcar and in track, as well  
2 as the shippers in the new cars that will help us  
3 meet the needs of a growing energy industry.

4           We need the regulatory certainty so that  
5 pipelines can build pipelines, including the  
6 Keystone Pipeline from Canada, which I've been  
7 working on since I was a governor.

8           We've got to cut through these  
9 bottlenecks, the red tape, the regulation. If we  
10 give the certainty that industry needs, they will  
11 make the investments. Those investments will  
12 produce the infrastructure. Those investments  
13 will deploy the technologies that really bright  
14 guys like Ernie Moniz come up with that will  
15 enable us to produce energy from all sources with  
16 lower costs, more dependably, and, oh, with better  
17 environmental stewardship.

18           So what I'm trying to in my job in the  
19 United States Senate as a member of the Energy  
20 Committee, is put forward legislation that would  
21 create a state's first all-of-the-above energy  
22 plan for our country. This country was founded on

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1 the concept that the states are the laboratories  
2 of democracy. Let's make them the laboratories of  
3 energy. Let's free them and empower them to do  
4 what North Dakota's doing. That's the kind of  
5 legislation we're putting forward. That's the  
6 kind of legislation -- I talked to Ernie Moniz for  
7 about an hour and a half in my office last  
8 Thursday, right. A week ago Thursday in my  
9 office.

10 SECRETARY MONIZ: (Inaudible).

11 SENATOR HOOVEN: Maybe it was Friday.  
12 It was Thursday. (Laughter.) Seems like only  
13 yesterday.

14 We had a Secretary of Energy that was  
15 willing to sit there for an hour and a half, and  
16 we talked about LNG export. We talked about  
17 hydraulic fracturing. We talked about  
18 infrastructure. We talked about technology. Now  
19 we've got to do it.

20 So here's the legislation that I've  
21 proposed and as part of this QER, I'm asking for  
22 help from the Administration and from these two

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1 outstanding Secretaries. But I believe that this  
2 is the kind of legislation that would truly enable  
3 us to build an all-of-the-above state's first  
4 energy plan for our country. Domestic Energy and  
5 Jobs Act. Approval of the Keystone XL Pipeline.  
6 EmPower States Act. Allow states the primary role  
7 in regulating -- the lead role in regulating  
8 hydraulic fracturing. You want more oil and gas,  
9 not only for this country, but to be able to work  
10 with our allies, give the states the lead role.

11 North Atlantic Energy Security Act, it  
12 will enable us to work with our allies on LNG  
13 export and the LNG Certainty Act, which I've  
14 already discussed in detail with Secretary Moniz.

15 The goal is specific. Let's be energy  
16 secure within five years. There is no reason we  
17 can't do it. No reason we can't do it. This is  
18 the type of legislation and working together that  
19 will enable us to accomplish it.

20 Thanks so much for being here. Truly  
21 appreciate it.

22 (Applause.)

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1 MS. KENDERDINE: Thank you, Senator.  
2 They're getting shorter and shorter.

3 Let me introduce you to Anthony Foxx,  
4 the 17th Secretary of Transportation.

5 Secretary Foxx.

6 (Applause.)

7 SECRETARY FOXX: Thank you, Melanie. I  
8 feel like I'm back home here in North Dakota, so I  
9 want to thank mom, dad, everybody who's here  
10 today.

11 In all seriousness, I want to recognize  
12 the incredible team of people that are here on  
13 this dias who are spending a lot of their time,  
14 energy, and attention on these issues. My  
15 colleague and great friend, Secretary Moniz, and  
16 the Department of Energy are doing outstanding  
17 work in trying to stand up and help lead this  
18 Quadrennial Energy Review. Along with Dr. John  
19 Holdren, who is someone who has enormous,  
20 enormous, enormous knowledge and insight into  
21 these issues.

22 And to Janice Schneider, I want to thank

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1 you for representing the Department of Interior  
2 today, and Secretary Jewell. And to your  
3 incredible Senators -- Senators Hoeven and  
4 Heitkamp -- and Congressman Cramer, who in  
5 Washington do an incredible job of representing  
6 North Dakota extremely well. I just want to say  
7 thank you.

8           And then, Governor Dalrymple, I want to  
9 say a special word to you. The last time I was  
10 here in North Dakota, I actually was in the  
11 Castleton area where Governor Dalrymple's family  
12 has had a farm, I understand, since 1875.

13           And Castleton, of course, is the place  
14 where we saw one of the most incredible and tragic  
15 incidents of some of these trains derailing and  
16 creating huge plumes of smoke and thankfully no  
17 loss of life, but certainly a wake-up call, not  
18 only here in North Dakota, but to the country,  
19 that as we raise our game in the production of  
20 energy and the ability to create jobs and to build  
21 a new economy based on energy independence, that  
22 at the same time we've got to raise our game on

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1 safety and ensuring that we don't have incidents  
2 like that happen.

3           And so, Governor, I just want to thank  
4 you for your leadership and for being here today.

5           It is, in fact, this issue of safety  
6 that brings me back here to North Dakota as  
7 Secretary of Transportation because our role in  
8 this issue is ensuring that the products that  
9 come, not only out of North Dakota, but anywhere  
10 in this country are moving in as safe a fashion as  
11 possible.

12           This is an incredibly timely discussion,  
13 particularly given the fact that the  
14 Administration is taking a 30,000-foot look at  
15 where we need to go in terms of energy policy, and  
16 this first year is being spent specifically on the  
17 infrastructure needed to move us along.

18           Our focus is on making sure energy  
19 products will move without causing harm to men and  
20 women and families and communities. And the  
21 increased production here in North Dakota has led  
22 to a lot of what we've done at the U.S. Department

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1 of Transportation, including our ongoing testing  
2 program called Operation Classification, which has  
3 showed us that the particular crude oil here finds  
4 itself on the higher end of volatility compared to  
5 other crude oils.

6 In addition to that, what we're also  
7 finding is that because the oil is being  
8 transported over long distances, and in some cases  
9 in high numbers of trains back to back to back,  
10 that the risk level is higher than we've seen in  
11 some other parts of the country.

12 Now, this may be a challenge that is the  
13 tip of the sphere because typically, we've seen  
14 production in certain parts of the country, and  
15 now we're starting to see the possibility that  
16 production can shift to different parts of the  
17 country where the infrastructure to support  
18 refining, separating, moving that energy product  
19 may be being built while the production is taking  
20 place.

21 Here in this region, in fact, since  
22 2008, we've seen a 4,000 percent increase in

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1 railcar loads of crude by rail. That's a huge  
2 increase. And this is why we've taken more than a  
3 dozen -- two dozen steps over the past year to try  
4 to strengthen the ways in which we deliver this  
5 oil.

6           Now, since I was here before, I said  
7 then that we were going to develop a proposed rule  
8 to address many of the challenges we see with the  
9 transport of crude by rail. And I now return to  
10 tell you that we have, in fact, published our  
11 proposed rule. The comment period is open. It is  
12 open for 60 days. And we fully ask anyone who has  
13 a view, a comment, frankly, informed or uniformed,  
14 to send us those comments within the 60-day  
15 period.

16           Many times in the rulemaking process,  
17 the time period is extended. But in this case  
18 because of the urgency, we are really trying to  
19 get the public comments done within the 60-day  
20 period so that we can move to review those  
21 comments and get to a final rule as soon as  
22 possible, because, as has been said before,

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1 certainty is something we've heard in the industry  
2 and this community speak about and as soon as we  
3 can get a final rule the better.

4 I want to talk about the rule just very  
5 quickly and then I will be seated.

6 Rulemaking does process to enhance tank  
7 car standards. Specifically, it phases out the  
8 use of older DOT111 tank cars for shipments of  
9 packing group 1 flammable liquids, including most  
10 crude oil within two years.

11 And let me say specifically that we  
12 don't single out Bakken oil and from oil, we  
13 actually make statements in our rule about the  
14 characteristics of the crude oil we're talking  
15 about so it isn't highlighting one place or  
16 another.

17 It also sets the stage to improve design  
18 requirements for tank cars built after October 1st  
19 of next year by proposing thicker, more puncture-  
20 resistance shelves and other safety features like  
21 enhanced braking and rollover protection.

22 We're also proposing to require higher

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1 standard for classifying mine gases and liquids,  
2 including most crude oil, and we're also proposing  
3 new operational requirements for trains carrying  
4 20 or more car loads of flammable liquids, such as  
5 restrict and steeds doing risk assessments of  
6 roots and notifying state emergency response  
7 commissions to ensure first responders in those  
8 states will be prepared to answer the call if  
9 needed.

10 I've also, again, asked our stakeholders  
11 -- and that's all of you, it includes all of you -  
12 - to comment within the 60-day period.

13 Again, I want to thank all of you for  
14 being here. I know time is short, so I'm going to  
15 sit down and give some time for my colleague,  
16 Ernie Moniz to comment. Thank you very much.

17 (Applause.)

18 MS. KENDERDINE: Thank you very much,  
19 Secretary Foxx.

20 At the risk of having Secretary Moniz  
21 yank me off the stage, let me say I've worked with  
22 Secretary Moniz off and on for about 17 years.

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1 First, when he was DOE's Undersecretary and I ran  
2 DOE's policy office, I am once again running  
3 DOE's policy office, but he's moved up. This is  
4 the Undersecretary of Energy, Ernie Moniz. Thank  
5 you.

6 (Applause.)

7 MS. KENDERDINE: Excuse me, Mr.  
8 Secretary. You were coming at me to yank me off  
9 the stage.

10 SECRETARY MONIZ: It was a real-time  
11 demotion, fantastic.

12 MS. KENDERDINE: Mine is soon to follow.

13 SECRETARY MONIZ: It's really a pleasure  
14 to be here in North Dakota. I haven't been here  
15 since 1999 when I came for a different purpose,  
16 which was to the Air Force Base in Minot. But now  
17 there's been, obviously, a lot of activity here in  
18 the energy world. And as has been said, and I'll  
19 just repeat, we certainly, in the Administration,  
20 and emphasize very much, even as we move to a low-  
21 carbon world, that we are committed to an all-of-  
22 the-above strategy, and as been said, but I will

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1 repeat it, North Dakota certainly exemplifies that  
2 in so many ways.

3           And, in fact, I think on this trip we  
4 will be at the gasification plant. We will be out  
5 in the Bakken. We will, I'm told, will drive by -  
6 - at least drive by a very large wind farm. I  
7 guess we'll leave ethanol for the next time, but  
8 the vehicle will have some ethanol in it, but --  
9 so the story in North Dakota is really a quite  
10 remarkable one.

11           And, of course, I want to say right up  
12 front that these regional meetings, as was said,  
13 this is ninth of our regional meetings. While I  
14 would just say that the importance that we, and  
15 certainly I attached with, this is the seventh one  
16 that I'm doing out of those nine, because as -- I  
17 think it was Senator Hoeven may have had the  
18 emphasis on the states -- we agree that states and  
19 regions are really where we have to look with  
20 resolution if we are going to understand our  
21 energy issues, certainly if we are going to  
22 understand our energy infrastructure issues.

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1           So we get great information from the  
2 panels at these meetings, but we really would like  
3 and welcome information from everyone in the  
4 public or in the state and local government,  
5 whatever. And I want to emphasis that this is not  
6 the only time for the input. Today is great, but  
7 we are open for information coming through any  
8 medium through which you can reach us because  
9 we're going to be working at this until the end of  
10 the year, the first results coming out in January  
11 on the infrastructure piece, so please do take  
12 advantage as you like of the opportunity to  
13 provide input.

14           I want to also thank President Clark and  
15 Bismarck State College. I've heard that I come  
16 from the second best engineering school in  
17 country, and we appreciate being here.

18           Also at the National Center of  
19 Excellence, we do note that the Department of  
20 Energy did help fund this building and so that may  
21 explain some of the generosity in hosting us here  
22 today, but we appreciate it. And I'm also told

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1 that if these were all open it would be a truly  
2 spectacular view looking out on the Missouri.

3           It's a great pleasure -- and again,  
4 given the time, I'm not going to walk the line  
5 here -- but just to say to be here, as you can  
6 see.

7           First of all, in the Administrative, the  
8 fact that we have here Transportation, the White  
9 House, and Interior. I might add, by the way, on  
10 Monday, we'll have another QER regional meeting  
11 where Secretary Jewell will be with me in Santa Fe  
12 because this really -- we emphasize energy cuts  
13 across the equities and the interests of  
14 essentially almost every department in the  
15 Administration, which explains the structure as  
16 has been described.

17           But also, of course, the North Dakota,  
18 the Governor and Congressional Delegation, it's  
19 great to be here. The Governor, I might say, I  
20 first met in his chairmanship role of the National  
21 Resource Committee of the National Governor's  
22 Association, and he was no less straightforward

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1 then than he was in laying out the agenda for our  
2 discussions today publicly, so that's really  
3 great.

4           But I also want to tell him that back  
5 in, I think it was, I forget, March maybe, I had  
6 the pleasure of waving the green flag at a Nascar  
7 spring series race in Virginia to learn. I didn't  
8 know that Nascar runs on E-15, so there you go.  
9 And, in fact, the flag -- the green flag at Nascar  
10 races now has printed on it ethanol, so you are  
11 getting some free advertising there to a large  
12 audience, I might say.

13           The delegation has been terrific to work  
14 with. It is good to be here on their turf. And a  
15 few of the issues they raise, Councilman Cramer, I  
16 think first raised and others have repeated, this  
17 importance of the work with Canada and then  
18 Mexico.

19           I will just add that we will be having  
20 actually an energy ministerial kind of summit with  
21 Canada, U.S., Mexico later on this year, really  
22 emphasizing the importance of working. That will

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1 be held in D.C., and perhaps some members of the  
2 delegation might like to, in fact, interact with  
3 that opportunity.

4           Senator Heitkamp, among other things, I  
5 can tell you, she never tires of reminding me of  
6 her directorship of the Great Plains Gasification  
7 Center. As she said earlier, she sometimes  
8 reverts to saying "we" when she should be saying  
9 "they" are doing something.

10           But this is a great plant. And again,  
11 just -- I presume here, it's probably well-known,  
12 but I do want to emphasize that this also a DOE  
13 history, of course, originally started in the loan  
14 guarantee. There was a little oops on the loan  
15 part, but actually, it's important to note that if  
16 you now look over time, that has been amply repaid  
17 back in a whole bunch of ways, and, in fact, is  
18 producing now, has a very profitable major  
19 enterprise, which is also a technology leader.  
20 It's ironic, it's decades old, but yet today, it  
21 is a technology leader for something we  
22 desperately need, converting CO2 into a valuable

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1 commodity. And we are seeing that.

2 I will take for Senator Hoeven, that  
3 this is indeed the only really operating plant for  
4 coal. We do have another one now that just  
5 started in Texas. They just passed a megaton.  
6 You're past 25 megatons here, I think. But with -  
7 -

8 UNIDENTIFIED SPEAKER: Puny.

9 SECRETARY MONIZ: Yes. In Texas,  
10 everything is smaller than North Dakota (applause)  
11 and the -- but that's actually a natural gas  
12 plant, and so it's a different technology.

13 Senator Hoeven also mentioned that we  
14 did indeed have a rather wide ranging discussion  
15 today. He welcomed me here today with a letter  
16 this morning in the Wall Street Journal. It said  
17 I was moving too slowly. But, you know, it -- but  
18 it reminds me, which is so often the case in  
19 Washington -- well, in general, that after the  
20 hearing the members have a standard line, it's  
21 nothing personal.

22 But seriously, we have a -- it's a very,

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1 very thoughtful delegation, one that's very --  
2 speaks, all of them, in the energy issues, and  
3 it's a great group to deal with on very, very  
4 serious issues in the energy policy for our  
5 country.

6           So let me say a few words more  
7 specifically. A lot's been said, so I'm just  
8 going to make a few specific comments.

9           Again, on the QER, first of all, the  
10 Quadrennial Energy Review, the focus on  
11 infrastructure this year, again, could not have  
12 been a better one, as we have seen so many areas  
13 now in need of infrastructure challenges being  
14 addressed. It's somewhat ironic that here we are  
15 in a period of, you might say, energy plenty.  
16 But, of course, the point is that the energy  
17 plenty has developed frankly so rapidly that we  
18 haven't had the infrastructure yet to adjust.

19           We heard, I think Senator Heitkamp, the  
20 -- where I come from, New England -- you know, we  
21 always hear numbers like \$4 for gas (inaudible)  
22 well, in the Northeast, we were talking over \$100

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1 for a while because of infrastructure constraints.  
2 This general part of the country even more -- it's  
3 a little bit more to the east.

4           The propane issues this last winter were  
5 very dire, as you know, considerable hardship for  
6 people. A large part of that was infrastructure  
7 constraints, combined with other circumstances,  
8 such as we heard the Governor talk about how much  
9 corn there is. Yeah, there was a lot of corn. It  
10 took a lot of propane to dry it. And this year,  
11 our colleague, Secretary Bilsak says it may be  
12 even more so this year.

13           So these are the kinds of infrastructure  
14 problems we think about today. Our energy  
15 information administration as a result is  
16 dramatically increasing its energy, its propane  
17 data collection, it's developing a website, making  
18 sure we have clear channels to the Governors, for  
19 example, which we used last winter, but this  
20 winter we'll have even more organized.

21           The fact is, even though we are in a  
22 slightly better situation this year than we were

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1 at this time last year, we are still below the  
2 five-year average in stocks and we just encourage  
3 -- so we need to be encouraging more and more  
4 building of reserves all the way down to the  
5 consumer level to make sure that if another hole  
6 of vortex comes that we aren't again caught  
7 unaware.

8           And, of course, the oil by rail, I won't  
9 go into that, but that's another example of the  
10 kinds of infrastructure issues that we are dealing  
11 with.

12           On that, I will add something -- one  
13 more thing that -- and it touches upon something  
14 the Governor said, but with Secretary Foxx, the  
15 Department of Energy, we are working closely  
16 together in terms of developing a strong research  
17 basis, a strong science basis for addressing all  
18 these issues of different kinds of crude oil,  
19 Bakken, others, but in general, the idea is that  
20 we in the Department of Energy, we have 17  
21 national laboratories, lots of capacity, and three  
22 skill sets in particular, deep chemistry, a

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1 longstanding leading research problem on  
2 understanding combustion processes, and a  
3 longstanding program, frankly, developed out of  
4 our nuclear weapons program, to understand fires  
5 and the implications of fires, so we will be  
6 bringing those together with the Department of  
7 Transportation and working out a research program  
8 going forward. Because, for example, the  
9 Industrial Council the report referred to earlier  
10 in North Dakota, our fossil energy people have  
11 looked at that, high quality. I think we will  
12 agree, however, still more questions to be  
13 answered going forward, so we will be looking at  
14 that.

15           Secondly, on the QER, just to repeat  
16 something said earlier, but with maybe a little  
17 twist, that the fact that North Dakota and the  
18 Marcellus, in particular, are producing so much  
19 oil and gas in new geographies leads to some of  
20 these infrastructure challenges. I just want to  
21 say the ripples are felt beyond this region and,  
22 in fact, this country, because as was stated, with

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1 this production, we have dramatically lowered our  
2 imports, Senator Hoeven mentioned that, quite  
3 dramatically. We still import a lot of oil, but  
4 it's gone down substantially.

5           And this week, President Obama hosted a  
6 major U.S.-Africa summit. Some of them have a  
7 different perspective. Our decreased imports are  
8 their decreased exports. And so the whole oil  
9 market, and eventually the gas market globally,  
10 will be readjusting to the kinds of developments  
11 that we are seeing here.

12           In terms of risk to infrastructure,  
13 Senator Heitkamp mentioned cyber, I wanted to say  
14 that we are looking in an integrated way at the  
15 risks to the energy infrastructure. I would say  
16 it starts with extreme weather, whether it is on  
17 the coasts, or droughts, or wildfires, et cetera,  
18 we have had substantial impact on our energy  
19 infrastructure already. We, frankly, expect that  
20 extreme weather will get more extreme as we go  
21 forward, and so looking at extreme weather as a  
22 risk to our energy infrastructure, in particular,

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1 as we build new infrastructure, making sure that  
2 we are doing it in a way that is resilient to this  
3 kind of impacts of extreme weather.

4 By the way, there can also be extreme  
5 weather in space in a certain space: geomagnetic  
6 storms; cyber, major issues; physical attacks on  
7 our infrastructure, regrettably we have seen some  
8 of that in the recent years, especially the power  
9 infrastructure.

10 And another risk, which is the very  
11 interdependence of our infrastructures: natural  
12 gas, electricity, IT, et cetera. One of the  
13 lessons of Hurricane Sandy on the East Coast was  
14 that while there was fuel around, you couldn't get  
15 to it. You couldn't get to it effectively while  
16 other infrastructures were down for several weeks.

17 So that, I want to assure that we are  
18 looking in this broad way at how we think about  
19 our future infrastructure as resilient to this  
20 full set of risks.

21 Climate change, I want to say I  
22 certainly align myself with the Governor in saying

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1 the issue is not whether we should address it, but  
2 how, is a dialogue that we need to have going  
3 forward, very important.

4           And just to repeat the last theme, the  
5 Administration's Climate Action Plan has put this  
6 question of resilience or adaptation, essentially  
7 at the same level as mitigation to minimize the  
8 effects of climate change, and that is very, very  
9 relevant, as I've said, to our discussions here  
10 about infrastructure.

11           I will make one last comment there  
12 about, this is not an infrastructure, but  
13 nevertheless, the issues were raised about  
14 addressing emissions from power plants, for  
15 example. That's an ongoing discussions.

16           I just want to emphasize that when we  
17 say "all of the above," what we are talking about  
18 -- certainly from the Department of Energy  
19 perspective -- we are talking about making the  
20 investments aggressively across all fuels to  
21 continuously push on lowering the costs of low  
22 carbon alternatives.

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1           It's equally true for carbon capture as  
2 it is for nuclear power, for renewables and for  
3 efficiency. That's what innovation in this  
4 business is all about. And certainly in the area  
5 of carbon capture, I just want to say that we have  
6 \$6 billion out there in terms of advancing,  
7 lowering -- continuing to lower the costs of  
8 carbon capture utilization of sequestration. We  
9 also have an \$8 billion loan guarantee program for  
10 fossil fuel technologies that lower emissions and  
11 advance energy technology innovation.

12           So we will continue that, again, across  
13 the board, fossil fuels, nuclear renewables and  
14 efficiency as we go forward.

15           But again, an important point is, and my  
16 last point, is to return to this issue of states  
17 because as we move forward, as is the case in the  
18 power plant example, what we are emphasizing is  
19 the critical role of states and their flexibility  
20 to find the solutions that make most sense in any  
21 given state or in regional groupings of states  
22 going forward.

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1           So, in fact, we do see the states and  
2 the regions as critical areas of innovation as we  
3 meet our economic environmental security  
4 challenges.

5           So with that, we look very much forward  
6 to some questions and some dialogue. Thank you.

7           (Applause.)

8           MODERATOR KELLEY: Well, thank you all.

9           If anyone has any questions, please join  
10 us at microphones on either side of the room. I  
11 think we have time for just a few. Any questions  
12 for this distinguished panel of guests?

13           Yes, sir. Please state your name and  
14 ask your question.

15           MR. METZKER: My name is Adam Metzker  
16 (inaudible). Just have a few questions.

17           The first question is (inaudible), how  
18 many North Dakotans since '99 without (inaudible).  
19 But anyway, what I would like to know what is the  
20 outlook in terms of the energy for the next five  
21 years here in the United States? And then I'd  
22 like to (inaudible) and also ask a question in

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1 terms of, if the United States -- if the energy  
2 (inaudible) get involved in (inaudible) basically  
3 regaining the power of the United States in the  
4 world, is that an option that makes sense?

5 MODERATOR KELLEY: Anyone care to  
6 address?

7 Mr. Secretary?

8 SECRETARY MONIZ: To start, I think this  
9 is something our delegation may want to weigh in  
10 on as well.

11 Well, first of all, it's fairly obvious  
12 the prospects for energy in the United States are  
13 very robust. We certainly see continued increases  
14 in both our gas and oil production. We are 8.4  
15 million barrels per day on the oil side. BIA  
16 expects that to go to roughly 10, or in the robust  
17 -- even the robust scenario, possibly as high as  
18 12 or 13 million barrels a day. It's enormous.

19 But at the same time, I want to  
20 emphasize, we are -- in the United States, we are  
21 currently building our first next generation  
22 nuclear power plants in quite a long time. Four

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1 of those are now well under construction.

2 We are also seeing tremendous advance in  
3 renewables. Certainly North Dakota is part of  
4 that in wind. Wind has now reached 4 percent of  
5 electricity in the United States. And if I look  
6 at solar, it tends to be more regional. In  
7 California, the last month that we have data for,  
8 solar electricity reached 6 percent of the supply  
9 in California. It's quite remarkable.

10 Now, that's a pretty strong picture.

11 And by the way, I should also add, the  
12 demand side is critical and that's -- we are  
13 seeing the impact of that on both electricity and  
14 liquid fuels use.

15 On the international scene, there's no  
16 question that the production in the United States  
17 is and will affect the geopolitics of the global  
18 energy markets.

19 But the one point I would also mention  
20 is that our energy situation is certainly one of  
21 the -- it's probably the lead driver of the United  
22 States being looked at now as the go-to place for

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1 manufacturing. Now, that's combined with, of  
2 course, rule of law and contracts, et cetera, but  
3 it's the energy situation that is the catalyst for  
4 that happening.

5           So this, as I said earlier in my little  
6 remark about the Africa summit, what's happening  
7 here and in Marcellus and the Eagle (inaudible),  
8 et cetera, it really is changing the world.

9           MR. HOEVEN: I'll just add in response  
10 to your question, absolutely. Energy is  
11 incredibly important in terms of global power,  
12 global strength, national security. Look what's  
13 going on in Europe. Look what Putin and Russia  
14 are doing in Ukraine and the reticence of the  
15 European Union to respond, let alone join us in  
16 meaningful sanctions.

17           So, you know, you make a very important  
18 point. When we talk about energy, I think  
19 Secretary Moniz made a great point too. If we  
20 want to be competitive in the global market in  
21 manufacturing, we're not going to do it with low  
22 wages, we're going to do it with lower energy

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1 costs and good wages, you know.

2           So no question, you're right on. Energy  
3 is so many more things and it certainly is  
4 national security and global power.

5           MR. METZKER: Is there a way we can also  
6 lower the \_\_ national debt \_\_?

7           MODERATOR KELLEY: Sir, why don't we  
8 give the other panelists a chance to answer your  
9 question.

10           CONGRESSMAN CRAMER: Yeah, certainly,  
11 because I think the best way to get at the deficit  
12 and the debt is to have a robust economy. And  
13 while we become more of a powerhouse in the global  
14 marketplace, by using the energy bomb as opposed  
15 to a missile in Europe, or we have a Secretary of  
16 State who a year ago was in Israel negotiating the  
17 peace agreement between Israeli and the  
18 Palestinians, today is negotiating a cease fire.  
19 Negotiating a nuclear deal in Iran and now  
20 expanded it for four months while they build a  
21 bomb. And now we -- today the President  
22 authorized bombs to be dropped in Iraq. These are

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1 all relevant to our energy security message. And,  
2 yeah, we need to reestablish our place in the  
3 globe.

4 MODERATOR KELLEY: Thank you. Anyone  
5 else care to comment?

6 SECRETARY MONIZ: Yeah, may I just add  
7 one more comment, if I may.

8 Senator Heitkamp, you go first.

9 MODERATOR KELLEY: Madame Senator, why  
10 don't you go ahead and take it.

11 SENATOR HEITKAMP: The ability to deploy  
12 energy to places that don't have energy gives them  
13 the -- in an affordable way -- gives them the  
14 ability to build out their economies. As these  
15 nations build out their economies and provide  
16 economic opportunity, that stabilizes those  
17 regions.

18 And so we've got to begin to address the  
19 advantage that we have to deploy our resources so  
20 we can make money here -- we're not saying give it  
21 away -- but so that we can, in fact, have soft  
22 power that will have a greater impact than what

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1 we've seen in terms of boots on the ground.

2 MODERATOR KELLEY: Other comments?

3 Mr. Secretary.

4 SECRETARY HOLDREN: Yeah, I don't want  
5 to let the comment about restoring the power of  
6 the United States and the world go unanswered. I  
7 agree with the things that were said about how the  
8 changing energy situation can help us move further  
9 in that direction. But I hope nobody needs  
10 reminding that the United States is still by far  
11 the strongest economy in the world, we have the  
12 strongest military in the world, we are the  
13 leaders in science and technology worldwide by  
14 every measure, we are the most prolific innovators  
15 of the world. Everyone all around the world  
16 wishes that they could duplicate our performance  
17 in terms of innovation in translating science and  
18 technology into goods and services that people  
19 want and need.

20 I don't think we should be doing too  
21 much handwringing about the United States lacking  
22 for influence in the world. That is not to say

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1 that there aren't many vexing problems out there,  
2 that despite our many assets, we have some  
3 limitations on our ability to fix everything  
4 simultaneously.

5 MODERATOR KELLEY: Secretary Foxx.

6 SECRETARY FOXX: I would only add one  
7 other point, which is one of the constraints on  
8 our ability to seize the moment with energy is our  
9 infrastructure and our ability to make it all work  
10 together.

11 We are going to see increasing  
12 competition for -- just using rail as an example -  
13 - rail lines which carry agriculture products, you  
14 know, now there's a vastly new growing economy  
15 around energy products moving by rail and how do  
16 you make that work.

17 And this is part of the reason why we as  
18 an Administrative believe that it's very  
19 important for the country to have an intentional  
20 growth-oriented infrastructure policy that helps  
21 us invest in the infrastructure we need so that we  
22 can get the return on that investment by reducing

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1 congestion, creating a more of a safe, efficient  
2 flow of goods to move around our country.

3 MODERATOR KELLEY: Thank you.

4 Other comments?

5 SECRETARY MONIZ: Yeah, I'm going to  
6 take a second go-around.

7 First of all, I want to very much  
8 emphasize what John Holdren said about the, you  
9 know, the strength of the country. And also note  
10 that if you look at the resourcefulness and  
11 resilience in this country, you know, it was not  
12 long ago, 2009 -- 2008, 2009, we had a deficit --  
13 because deficit was mentioned earlier -- that was  
14 10 percent of GDP. We're now at 2.8, you know,  
15 which is kind of the target area, et cetera. So,  
16 you know, we are -- we have a very, very, very,  
17 very powerful message there.

18 On the trade balance, that's where, of  
19 course, the oil production is directly driving  
20 that down, and that's part of the economic story.

21 But another thing, I just want to re-  
22 emphasize two things that were said earlier.

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1           One was this point about what's  
2 happening in Europe and around the Ukraine  
3 situation. I just want to note, actually, the  
4 President led the G7 to charge the Energy  
5 Administrators to look at errant security.

6           And one of the very important issues was  
7 just getting a common declaration that energy  
8 security is not an individual issue; it's a  
9 collective issue. And the point that was made  
10 here is that even though the United States -- you  
11 know, by most measures, we don't have exactly a  
12 high degree of energy insecurity, we do import  
13 some oil, but we produce 84 percent of our energy  
14 domestically.

15           However, if our friends and allies have  
16 that insecurity, it can clearly come back and  
17 affect our ability to exercise certain directions  
18 in foreign policy, for example. So it's a very  
19 important point that it's collective energy  
20 security that we have to address.

21           And the last point is that jobs were  
22 mentioned. And I think it's also important, the

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1 President likes to talk about lattice of  
2 opportunity, having jobs that are jobs that bring  
3 people up into the middle class. Energy has  
4 certainly been driving that train. And so this is  
5 very, very important.

6 We're here at a college, human capacity  
7 building, critical for the whole energy industry  
8 today. And would emphasize that at the Department  
9 of Energy, we are moving this forward. We need to  
10 keep pushing hard on this capacity building. The  
11 energy industry depends up on it. The whole  
12 energy industry. It also means we've got to get  
13 more women, more minorities into this business.  
14 We're going to need all hands on deck to take  
15 advantage of the opportunity that we have right  
16 now to lead the world, not only in oil and gas,  
17 but in technology development.

18 MODERATOR KELLEY: Thank you.

19 Let's turn to another question from  
20 another member of the audience.

21 Ma'am, if you could stand your name and  
22 ask your question.

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1 MS. McCARTEN: Welcome to North Dakota  
2 (inaudible) on the Canadian border, about 40 miles  
3 from the end of the earth, which is Canada.  
4 (Laughter.) And we are providing -- we're in the  
5 oil (inaudible). But what's happened in Burke  
6 County is that we are the forbearers of  
7 international (inaudible) 24-hour (inaudible). We  
8 have a two-lane highway (inaudible). How I'm  
9 competing with oil trucks (inaudible). We have 95  
10 people (inaudible) 65 (inaudible). (Laughter.)  
11 (Inaudible) we're all affected by it, but in the  
12 meantime, we have a 24-hour-a-day (inaudible) our  
13 economy. They go after (inaudible) the state's  
14 highways have built the overpass to go (inaudible)  
15 rail and (inaudible) rail are still going  
16 (inaudible) or it's just a little over a mile  
17 storage track. So now, that sits off with the  
18 (inaudible) proposal (inaudible) but really more  
19 than the train filter (inaudible) truck, whatever  
20 those storage units are (inaudible) past the town,  
21 and you've got storage of crude or storage tracks  
22 for a mile. And you have an overpass with all

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1 kinds of (inaudible) doesn't make (inaudible)  
2 talking to another person.

3 MODERATOR KELLEY: So do you have a  
4 question for them, ma'am?

5 MS. McCARTEN: My question is  
6 (inaudible) propane was \$5 a gallon (inaudible)  
7 (inaudible) there's something wrong with this. I  
8 would like you to look at both in our county and  
9 in North Dakota, get them up to speed. I'd like  
10 to look at the Canadian border become a Canadian  
11 (inaudible) across the highway (inaudible).  
12 There's nothing wrong with (inaudible), I'm just  
13 asking if (inaudible) look at the big picture  
14 (inaudible).

15 MODERATOR KELLEY: Secretary Foxx, you  
16 care to comment?

17 Oh, I'm sorry, Governor.

18 GOVERNOR DALRYMPLE: I'm going to take  
19 that.

20 MS. McCARTEN: I (inaudible).

21 (Laughter.)

22 GOVERNOR DALRYMPLE: Thank you for

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1 telling me, and, yes, we are investing in North  
2 Dakota hundreds of millions of dollars in  
3 infrastructure in western North Dakota. Actually,  
4 a total of 2.7 billion for this biennium and much  
5 of it going into roads and highways, four-laning  
6 between places like Watford City and Williston,  
7 over passes, by passes around cities, and I'm very  
8 sorry that they haven't quite gotten to Burke  
9 County yet, but they will, because we're  
10 supporting not only state highways, but we are  
11 putting state dollars directly into counties and  
12 county road systems now, totally unprecedented in  
13 our history.

14           So people -- we know that, you know, the  
15 roads need to be built to a higher standard than  
16 they have been in the past and they're coming.

17           MS. McCARTEN: That's a promise.

18           MODERATOR KELLEY: Thank you, Governor.  
19           Secretary Foxx.

20           SECRETARY FOXX: Yeah, I just want to  
21 say two things in response to the question.

22           On the rail side of the equation, my

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1 hope is that the comprehensive proposed rule that  
2 we have put in place for comment, once it is  
3 final, gives you much more certainty about what  
4 safety measures are in place and what -- you know,  
5 how we're trying to address safety on the rail  
6 system, because there are some gaps that we're  
7 trying to fill through this rulemaking.

8           The second point is that -- and this is  
9 a general point -- about a week ago, Congress  
10 passed a measure to patch up the Highway Trust  
11 Fund a little bit more and it will keep it in  
12 place for ten months. But this is a really,  
13 really important point because you've just more  
14 eloquently than I ever could.

15           The country is going to have a hundred  
16 million more people over the next 35 years, and  
17 we're going to have double -- basically double our  
18 freight capacity. And that's going to affect  
19 everything. It's going to affect roads, rail,  
20 rivers, airports, everything.

21           And in fast-growing places like North  
22 Dakota where the economy's going like gangbusters,

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1 you've got thriving economies here, more people  
2 come in. That's more people on the road and more  
3 commodities trying to move, and you've got two-  
4 lane roads with no shoulders, you're going to have  
5 a problem.

6           So you've got a great Governor who's  
7 working on this issue here within the state. But  
8 my point is, is that Washington's not helping you  
9 as much as we should, because what this Governor  
10 out to know, is he ought to know that over the  
11 next several years, he's going to have X amount of  
12 money coming from the Federal Government that can  
13 be matched with the money that the state's  
14 producing to get a road system built here that's  
15 going to meet the needs of North Dakota. What  
16 he's got right now is ten months' of certainty.  
17 And in ten months, it's likely that there will be  
18 another conversation about whether we go over the  
19 cliff or not, in which case, he may be thinking  
20 about which projects he has to pull or slow down  
21 as opposed to which projects he ought to get done.

22           So one of my crusades right now is

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1 trying to help the public understand that the  
2 problem you just identified is a problem we're  
3 going to have all over this country until we have  
4 a long-term transportation bill. And I will do  
5 everything I can to help us get there.

6 (Applause.)

7 MODERATOR KELLEY: Senator Hoeven, just  
8 a few quick remarks before you close out.

9 SENATOR HOEVEN: The focus of this QER  
10 is infrastructure, so I think you made the point  
11 that we need infrastructure as part of a  
12 comprehensive energy plan really, really well.  
13 You did a great job of making that point in a very  
14 personal, real way. So thank you for that.

15 Second, Keystone XL Pipeline would take  
16 500 trucks a day off those roads out in your area.  
17 That would have an affect. We need pipeline  
18 infrastructure as well as roads and rail and  
19 transmission too.

20 The third point is, we need a long-term  
21 highway bill. We're actually pushing to get a  
22 six-year highway bill. Secretary Foxx made that

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1 point very well.

2 But again, back to my point is, today's  
3 about infrastructure, and you did a wonderful job  
4 of making that point very well.

5 MS. McCARTEN: I have one other  
6 question.

7 MODERATOR KELLEY: I'm sorry, we don't  
8 have enough time. We do need to stick to our  
9 schedule, but thank you, appreciate it.

10 Well, please join me in thanking our  
11 distinguished guests here today.

12 (Applause.)

13 MODERATOR KELLEY: So at this point, our  
14 elected and cabinet officials will be heading to a  
15 press briefing down at the end of this hall here,  
16 so if members of the press would like to join  
17 them, you're welcome to do that at this point.

18 And I will ask our next panel to join me  
19 up here on the stage as soon as you can. Thank  
20 you.

21 Okay. We're going to get started here  
22 shortly. While we're waiting for everyone to join

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1 us up on stage, just another quick reminder that  
2 if you're joining us via the livestreaming to send  
3 any comments you have to QERcomments@hq.doe.gov.

4 And again, the comments and presentation  
5 will be available after today's session at  
6 [www.energy.gov/QER](http://www.energy.gov/QER).

7 (Panel 3 takes the stage.)

8 MODERATOR KELLEY: Okay. Our next panel  
9 is on Bakken Infrastructure Constraints and  
10 Solutions. So I'd like to welcome our panelists  
11 to the stage, please.

12 Okay. I see we're missing Matt. He'll  
13 be joining us here shortly, but we'll go ahead and  
14 get started in the interest of time. And I'd like  
15 to welcome our panel and remind them that we do  
16 have -- we are trying to work against the clock  
17 here. So we have a series of lights to remind you  
18 when your time is up, so -- and I'll help out with  
19 that as well.

20 So just like in the first panels, we're  
21 going to have each of you speak to your notes and  
22 provide your comments. You have five minutes --

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1 five to seven minutes to do that, and then at the  
2 end, we'll open it up for discussion.

3 So I'm pleased to welcome for the next  
4 panel, a few folks here on the stage here with me.

5 Mike Eggl of Basin Electric. He's the  
6 Senior Vice President, Communications &  
7 Administration.

8 We'll skip over Matt for right now.

9 We have Robert Steede, Director of  
10 Enbridge, North Dakota.

11 We also have Mindi Schmitz, Government  
12 Relations Specialist, Environmental Law and Policy  
13 Center.

14 And George Boyajian, Vice President of  
15 Business Development, Primus Green Energy.

16 So with that, let me turn to you, Mike,  
17 to go ahead and get started.

18 MR. EGGL: Thank you. Appreciate you  
19 all taking the time here. And now that we're  
20 speaking to the truly committed in the room, so a  
21 round of applause for yourselves.

22 My name is Mike Eggl. I'm with Basin

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1 Electric. I'd like to thank everybody here and  
2 thank the delegation and the Governor, as well as  
3 the Secretaries, for coming to North Dakota and  
4 seeing what we have to share.

5 I'd particularly like to thank Secretary  
6 Foxx who opened the category of comments to both  
7 the informed and uniformed, try being -- making  
8 use of that second category today.

9 So the question is, I would like to  
10 outline a little bit of what's happening in the  
11 Bakken from an electrical standpoint, how that's  
12 affecting some of our decision-making, show you  
13 some of the constraints that we're particularly  
14 looking at, and then how that relates to some of  
15 the national energy policy questions. I'll just  
16 hit on two. Many of them have been mentioned  
17 already here today from a highlight standpoint.

18 So Basin Electric is a mid-size utility.  
19 It's a cooperative. We serve nine states. We  
20 have about 5,000 megawatts of capacity. And we  
21 serve those nine states through a series of G&T's  
22 and 137 members.

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1           But the important thing to remember from  
2 this discussion is that we serve where the people  
3 are not. We serve from North Dakota, to the  
4 Canadian to the Mexico border. We serve in those  
5 areas where the lights are not where the people  
6 aren't, so it's 3 million people throughout that  
7 territory. Our membership is largely in the  
8 farming/ranching community, small towns throughout  
9 that area.

10           So in a lot of ways, that 5,000  
11 megawatts, the picture you see up there is one our  
12 coops, Mountrail-Williams, one of the 137. You'll  
13 be hearing a little bit from Claire Vigesaa, who  
14 is responsible for the G&T upper Missouri, in that  
15 area, and he'll show you some similar slides.

16           And what that largely depicts is the  
17 aggressive changes we've had to face as the Bakken  
18 has grown. You'll notice that at the beginning of  
19 that timeline, Mountrail-Williams, which was a  
20 smaller cooperative, had about a 50-megawatt  
21 demand. And in the last few years, that's grown  
22 to approximately 300 megawatts. That's forecasted

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1 to go beyond that 2014, 2013 timeline you see  
2 there up into the, possibly as high as 900-  
3 megawatts by 2025.

4           So Mountrail-Williams, along with  
5 McKenzie, are two of the cooperatives that are  
6 facing by far the largest increases associated  
7 with the Bakken, and they have been scrambling to  
8 keep up.

9           This is Basin Electric's load forecast.  
10 You see the red largely delineates the, what we  
11 call the impact of the Bakken and the low growth.  
12 We have been responding to that as quickly as we  
13 can. You see that prediction for another 1600  
14 megawatts worth of load growth in that area. And  
15 then this is Basin's load growth overall of the  
16 over 1800 megawatts that we predict in that  
17 timeframe, another 300 above and beyond what's  
18 happening in the Bakken.

19           So how will we respond to this? We are  
20 moving forward with a plan, essentially, to look  
21 at generation purchases, generation development,  
22 and transmission enhancements. And this slide is

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1 a little bit busy, but encompasses a lot of what  
2 we've been doing.

3           That yellow line on the bottom was our  
4 2013 load forecast. You can see it kind of  
5 increasing steadily through that process. But  
6 then you look at that white line right on top of  
7 it and the 2014 load forecast going up  
8 significantly. A lot of these loads are  
9 unpredictable. We've worked with the State of  
10 North Dakota, the oil and gas industry, to put  
11 together a load forecast that everybody is  
12 comfortable with, but still significantly  
13 variable. We used to do load forecasts on a two-  
14 year basis, now we basically do them on a month-  
15 by-month basis in order to respond to this.

16           That green line on the bottom represents  
17 some of the generation additions that we've been  
18 bringing on. Because of the speed of this, we've  
19 largely been putting in natural gas, peakers, and  
20 the red line on the top is the total capacity the  
21 transmission system, including MDU, who is the  
22 investor-owned utility in the area, to serve this

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1 load.

2 I don't want to get too technical, but  
3 the little red dot is where those two lines cross  
4 between load serving capacity and load. We don't  
5 like that to happen. This is bad. We like to see  
6 those two lines never cross. And so we are  
7 aggressively moving forward with this development  
8 to make sure the lights stay on, because it isn't  
9 just -- this is hospitals, this is homes, this is  
10 other things that we have to concern ourselves  
11 with.

12 And my point related back to the energy  
13 policy discussion that we've been having, is that  
14 I would encourage us to take as long a view as we  
15 can with some of these things with the  
16 transmission constraints that some of the -- the  
17 Secretaries mentioned others.

18 We've talked about corridor development.  
19 Well, it is a good idea, but you can't move  
20 forward with corridor development on an emergency  
21 basis. You know, when we are up to your elbows in  
22 alligators, you can't drain the swamp.

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1           So about a year and a half ago, we met  
2 to talk to the Forest Service, others, about this  
3 type of corridor development, and everybody put  
4 their maps up to where they'd want to go, and lo  
5 and behold, everybody needed to go someplace  
6 different.

7           So if you're going to do that kind of  
8 long-term planning, you have to start early. You  
9 have to consider it to be the National Highway  
10 System. You have to think about in a more  
11 proactive, longer-term view, and I see many people  
12 in the room who do this every day.

13           Same thing applies to the issue of fuel  
14 choice. I mentioned that we're doing natural gas  
15 peakers. This is not always the most efficient  
16 way of doing things if you're looking at the long-  
17 term; however, given the rapid nature of  
18 development, it's likely our only choice for the  
19 short term.

20           You heard some of the previous panelists  
21 talk about that need in terms of flexibility to  
22 use other fuels, including coal, including natural

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1 gas. This is something that we considered to be  
2 long-term choice. The 1970's brought us the Fuel  
3 Use Act. That meant that we couldn't even use  
4 natural gas to generator electricity. We make  
5 these commitments over decades and decades. We  
6 have facilities that last for a 30-, 40-year  
7 period, and so that is how we think we need to  
8 make these decision.

9           So we encourage that kind of foresight  
10 and we thank you for taking the time to come and  
11 talk to us.

12           MODERATOR KELLEY: Thank you, Mike.

13           Let me turn to Robert now. Robert.

14           MR. STEEDE: Hi. My name is Bob Steede.  
15 I'm the Region Director for Enbridge Pipelines in  
16 North Dakota here.

17           We are living in an exciting time, not  
18 just for the energy sector or for Enbridge, but  
19 for all energy consumers in the United States and  
20 Canada, for the people of North Dakota, for oil  
21 producers in the Bakken region. Domestic  
22 production is climbing and continually breaking

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1 new records.

2           As a way of background about Enbridge,  
3 Enbridge operates the longest, most sophisticated  
4 oil and liquids transportation system, delivering  
5 approximately 2.5 million barrels of oil  
6 throughout North America each and every day.

7           On any given day, Enbridge is the single  
8 largest importer of crude oil into the United  
9 States, originating from Canada. However, given  
10 increasing production and our customers' needs to  
11 move product market, Enbridge is continually  
12 working to enhance, expand, and develop safe,  
13 efficient, and economical transportation options.

14           Here in North Dakota, Enbridge has  
15 invested more than \$1.2 billion over the past  
16 decade alone, expanding our energy infrastructure  
17 so that we are able to move to market even more of  
18 the high quality Bakken crude oil that North  
19 Americans need.

20           These projects have included our Bakken  
21 Expansion Program. This pipeline was placed into  
22 service in March of 2013, providing additional

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1 pipeline capacity out of the Bakken region.

2           This series of repurposes and expanded  
3 pipelines out of western North Dakota, north into  
4 Canada to our main line in Cromer, Manitoba, added  
5 145,000 barrels a day of Bakken takeaway capacity  
6 from our system.

7           This project also included construction  
8 of a 16-inch pipeline from Beaver Lodge south of  
9 Tiago to Berthold, North Dakota, and also included  
10 pump station installations in Lignite and Canista,  
11 North Dakota.

12           Our Berthold Rail Project has been fully  
13 in service since second quarter of 2013, and  
14 enables the transportation of 80,000 barrels a day  
15 of Bakken crude, again, out of North Dakota.

16           As a result of the pipeline expansion  
17 and rail projects, Enbridge now has capacity to  
18 move approximately 355,000 barrels a day of crude  
19 oil out of the Bakken region via pipeline and rail  
20 projects.

21           With our existing system, our total  
22 capacity is 435,000 barrels a day. That's less

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1 than one-half of the average daily production in  
2 the Bakken.

3 We also have a 40,000-barrel-a-day  
4 connection to a third-party rail facility in the  
5 Stanley area. In less than a decade, Enbridge has  
6 increased its takeaway capacity from only 80,000  
7 barrels a day in 2005 to nearly six times that  
8 amount of 475,000 barrels per day, and we're not  
9 done.

10 Considering the growing average daily  
11 production of crude oil from the Bakken and that  
12 approximately two-thirds of the production is  
13 transported by rail, we believe our shippers agree  
14 with us that still more pipeline capacity is  
15 needed.

16 That's why we have proposed our 610-mile  
17 pipeline that we refer to as the Sandpiper  
18 Pipeline, originating from our Beaver Lodge  
19 Station south of Tioga through Clearbrook,  
20 Minnesota, to our Enbridge main line facility in  
21 Superior, Wisconsin.

22 Much of the pipeline generally follows

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1 existing pipeline corridors, as well as other  
2 utility right-of-ways, and will have initial  
3 capacity of 225,000 barrels per day out of western  
4 North Dakota to Clearbrook, and 375,000 barrels a  
5 day from Clearbrook to Superior.

6           With this project in place, Enbridge's  
7 total takeaway capacity from the Bakken will  
8 increase to over 700,000 barrels per day. When  
9 completed, this \$2.6 billion investment will  
10 further help connect North Dakota shippers to a  
11 variety of markets throughout North America, while  
12 providing a long-term, stable, and reliable source  
13 of crude oil for many United States refineries.

14           The project is currently working through  
15 federal and state regulatory process and subject  
16 to these approvals, and has an anticipated in-  
17 service date of early 2016.

18           The North Dakota Public Service  
19 Commission and the Federal Energy Regulatory  
20 Commission recently granted their approvals of our  
21 Sandpiper Project.

22           Enbridge's infrastructure expansion

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1 enhancements are not limited to the Bakken and  
2 North Dakota. With our \$36 billion slate of  
3 commercially-secured energy infrastructure growth  
4 projects across North American, Enbridge is  
5 playing a pivotal role in supporting a massive  
6 increase in energy production in North America by  
7 providing transportation options to new and  
8 existing markets.

9           These market access initiatives have the  
10 potential to add an incremental 1.7 million  
11 barrels per day of crude oil capacity to the  
12 Enbridge system.

13           So we have a longstanding history of  
14 solving energy infrastructure challenges and  
15 constraints, and we continue to plan to do so over  
16 the next several years.

17           We provide our customers with long-term  
18 reliability, operational flexibility and now into  
19 the future. On behalf of Enbridge, thank you for  
20 inviting me to participate here today.

21           MODERATOR KELLEY: Thanks, Bob.

22           Mindi.

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1 MS. SCHMITZ: Okay. Can you hear me?

2 My name is Mindi Schmitz, and I live in  
3 Jamestown, and for the past five years, I've  
4 worked for the Environmental Law and Policy  
5 Center's North Dakota's office. And if you stay  
6 till the end of our panel, you'll get a door  
7 price. Anyway, thank you for arranging today's  
8 event and asking me to participate, and thank you  
9 for coming to North Dakota.

10 Many of the issues surrounding America's  
11 energy development can be seen here, as we heard  
12 on the panel earlier.

13 ELPC is a non-profit organization  
14 operating throughout the Midwest and the Upper  
15 Great Plains. We have offices in North and South  
16 Dakota, as well as four Midwest states and  
17 Washington, D.C. We focus on public policies that  
18 promote energy efficiency, spur renewable energy  
19 development and create jobs while encouraging wise  
20 environmental practices.

21 Today, I'm going to touch on two points.

22 First, we need to expand our energy

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1 focus to include the state's renewal energy  
2 potential.

3           And second, as oil development  
4 flourishes in our state, we need to ensure that  
5 wise policies are in place to protect public  
6 health and minimize negative environmental  
7 impacts.

8           North Dakota is in the midst of an  
9 economic boom, driven to a great extent by energy  
10 production. This boom is primarily focused on  
11 Bakken oil, but there are other energy development  
12 opportunities here to diversify the state's energy  
13 mix and broaden the economic expansion.

14           In particular, it is strategically  
15 important for the nation to expand its commitment  
16 to renewable energy. We need research and  
17 development designed to help us become a leader in  
18 alternative, sustainable energy, protecting our  
19 environment and creating a myriad jobs in the  
20 process.

21           NREL, the Department's excellent  
22 renewable energy research laboratory, has rated

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1 North Dakota's wind resource as sixth best in the  
2 nation. However, that resource is not being  
3 tapped as it should. Most recent data indicates  
4 that our state ranks 11th in wind energy  
5 production. There is a substantial and costly gap  
6 between the potential represented in the size of  
7 the resource and the actual represented by the on-  
8 the-ground wind development.

9 I use the word "costly" because the  
10 failure to take advantage of this immense wind  
11 resource means a loss of jobs, landowners' lease  
12 payments, local property tax and state and federal  
13 tax revenues. As our state has gained from Bakken  
14 oil development, so too can we benefit from  
15 greater wind development. It is important to  
16 remember that while the Bakken is located in one  
17 region of the state, the potential for wind is  
18 statewide.

19 The biggest impediment to renewable  
20 energy development in North Dakota is inadequate  
21 transmission. Like all commodities, wind-  
22 generated electricity must have a way to get to

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1 the market. North Dakota has the wind resource  
2 and the potential for thousands of additional  
3 megawatts of energy, but we need the transmission.  
4 This is clean electricity with no pollution, no  
5 demands on water resource, and no waste in need of  
6 disposal. We urge the Department to work with  
7 MISO and others to make sure adequate transmission  
8 is put in place to get our wind to market.

9           In addition, I wish to express support  
10 for NREL and its impressive work. In particular,  
11 I want to highlight and encourage NREL's continued  
12 work on batteries and energy storage. Research  
13 and development is especially critical in the  
14 energy field. We must continue to fund R&D.

15           Next, I'll turn to a wasted opportunity  
16 with serious negative economic, environment, and  
17 public health implications.

18           As I've noted, an economic boom is  
19 underway in North Dakota driven by Bakken oil. It  
20 has produced jobs, significantly reduced  
21 unemployment, stimulated our economic, and  
22 responded to the Nation's desire for domestic

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1 fuel. These developments, though, must not blind  
2 us to the harmful wastage occurring in North  
3 Dakota due to flaring and venting of natural gas.

4 Flaring has wasted millions of BTU's of  
5 gas that could have been added to the nation's  
6 energy production. It has also denied landowners  
7 and taxpayers of millions of dollars of revenue.  
8 Flaring is unnecessary and is harmful to the --  
9 and has environmental consequences.

10 Permit me to underscore three reasons  
11 why we should reduce flaring in the Bakken.

12 First, we are wasting energy. North  
13 Dakota wastes -- via flaring -- about one-third of  
14 the gas it produces at oil wells. Although some  
15 actions are being taken to cut back flaring,  
16 including the construction of new gas processing  
17 facilities and pipelines, the volume of flare gas  
18 keeps growing as the number of wells in the state  
19 rise.

20 In May 2014 alone, operators flared  
21 nearly 10 billion cubic feet of gas. That's  
22 enough to heat around 100,000 average homes for

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1 one year.

2           Bakken natural gas is particularly rich  
3 with high quality natural gas liquids, including  
4 ethane, propane, butane or natural gasoline.

5 Eight to twelve gallons of these liquids may be  
6 present in 1,000 cubic feet of raw natural gas,  
7 adding much value to the gas.

8           Demand for gas and gas liquids is rising  
9 as electricity generators increasingly turn to gas  
10 for fuel. Adequate gas supply is essential to  
11 ensuring the heat and lights stay on during peak  
12 periods.

13           As an example, during last year's harsh  
14 winter, North Dakota experienced a propane shortage  
15 that could have been alleviated, at least in part,  
16 by capturing NGL's from fracking.

17           Second, flaring costs the state and  
18 nation money. By flaring gas, we are throwing  
19 away revenue opportunities for landowners and  
20 much-needed tax revenues for local, state and  
21 federal governments.

22           According to a report by CERES, in 2012,

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1 flaring resulted in the loss of approximately \$1  
2 billion in natural gas, and in May 2013 gas  
3 flaring cost the state about \$3.6 in lost tax  
4 revenue per day.

5           Third, flaring is an environmental  
6 hazard. Gas flaring produces huge amounts of  
7 harmful, smog-forming nitrogen oxides and volatile  
8 organic compounds; greenhouse gas pollution,  
9 including carbon dioxide and methane; and toxic  
10 hazardous air pollutants.

11           To put that pollution in perspective,  
12 CERES found that flaring in North Dakota in 2012  
13 alone amounted to the Greenhouse Gas Emissions  
14 equivalent of adding 1 million cars to the road.

15           Venting natural gas, or releasing toxic  
16 chemicals and methane, is a powerful Greenhouse  
17 Gas pollutant, is releasing that directing into  
18 the air, either intentionally or unintentionally  
19 through leaks. This creates even more pollution  
20 than flaring.

21           In addition to our objection to wasteful  
22 flaring and venting, we are also concerned about

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1 water usage demands and water contamination issues  
2 related to fracking. Water is being used for  
3 fracking in every-larger volumes in North Dakota.  
4 Each fracking well requires millions of gallons of  
5 water per frack.

6           The more natural gas we waste, the more  
7 wells we will need to frack, with increasingly  
8 adverse impacts on water supply for farmers,  
9 ranchers, other businesses and public water  
10 supplies.

11           Upgraded, safe pipelines, rail cars and  
12 trucks used for transporting oil and fracking  
13 wastewater are critical to protecting our state's  
14 water supply. Already nearly a million gallons of  
15 fracking wastewater have spilled from broken  
16 pipelines and contaminated tributaries of the  
17 Missouri River.

18           We are especially concerned that  
19 fracking --

20           MODERATOR KELLEY: Can you work on  
21 concluding your comments, please?

22           MS. SCHMITZ: Okay. We are especially

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1 concerned that fracking and flaring are  
2 devastating special places in North Dakota,  
3 including Theodore Roosevelt National Park.

4 We do have five recommendations for the  
5 Department.

6 We wish that they would adopt mandates  
7 to minimize flaring from oil-mixed and oil-and-gas  
8 wells.

9 Promulgate requirements to minimize  
10 methane leakage from wells, pipes and associated  
11 gas production and transport equipment.

12 Pass more stringent rules for pipelines,  
13 railcars and trucks to minimize oil/wastewater  
14 spills, and strictly enforce those rules.

15 And bolster protection for special  
16 places under federal control, including Theodore  
17 Roosevelt National Park and Dakota Grasslands.

18 Thank you for the opportunity to provide  
19 input today.

20 MODERATOR KELLEY: Thank you, Mindi.  
21 George.

22 MR. BOYAJIAN: Thank you. Well, Mindi

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1 set this up pretty well. My name's George  
2 Boyajian. I head up business development for  
3 Primus Green Energy. And you have a challenge  
4 here with flared gases, as Mindi so eloquently  
5 stated. There are ways to solve that challenge  
6 and address that challenge.

7           One is to build more pipelines, but  
8 that's going to take time, it's going to take  
9 money, and pipelines will not reach all areas  
10 where flared gas is.

11           And then there are technological  
12 solutions to the problem, distributed ways to  
13 capture that flared gas and turn it into valuable  
14 product. That solves the problems for all  
15 stakeholders. Landowners get their royalties,  
16 environmental concerns see a reduction in methane  
17 at the wellhead, as well as CO2 being released by  
18 the flares. You know, the people that own the  
19 asset are making more money.

20           So we have -- I'm going to describe one  
21 technology today, a one that we've developed with  
22 \$60 million to date, and I'll tell you a little

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1 bit about it. And it's just one. There's several  
2 that are out there. There are small scale LNG,  
3 CNG, LPG, MTG, the alphabet soup of technologies  
4 that you can look at.

5           So we know that there are currently no  
6 small scale modular systems available to take care  
7 of this gas. We think we have one today. And  
8 there's a technology jump needed and I'll talk  
9 about that today.

10           We're a technology development company  
11 that is currently operating. We've built and  
12 operating a flared gas unit in New Jersey. We  
13 don't have flared gas in New Jersey, but we take  
14 it from the pipeline. And we're converting that  
15 into gasoline -- mid-octane gasoline.

16           We have 50 employees and we are  
17 currently rolling these technologies out in places  
18 like Kazakhstan, Turkmenistan, and foreign  
19 countries like Texas as well, where we are  
20 building a couple of 2,000-barrel-a-day plants  
21 down there. So there are places where this  
22 technology is being used and it can come to the

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1 Bakken.

2           So this is how our system sets up. You  
3 can see that the primus flared gas solutions sort  
4 of sits in taking the flared gas off the wellhead.  
5 And there are a whole series of utilities you  
6 might need around. We supply just one component  
7 of this, but other infrastructure needs are  
8 necessary as well, especially power and  
9 electricity.

10           Our system is a pretty simple one. What  
11 we do is we take the natural gas and all the  
12 associated natural gas liquids, the C2, C3, C4, I  
13 think propane, butane and so forth, and we can  
14 tear those apart through a process called steam  
15 methane reforming.

16           What that does is it breaks those  
17 compounds into carbon monoxide and hydrogen. And  
18 you re-combine that into chemicals like octane,  
19 CH18. And that's what we do. We take that and go  
20 through a four-step catalytic process and move  
21 those chemicals over a series of marbles that are  
22 doped with certain chemicals and big steel tubes

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1 at high temperature and high pressure, and we go  
2 through a four-step process that goes through  
3 methanol, DME, which is dimethyl ether, and we  
4 make gasoline and we treat that gasoline so you  
5 can use it in your car. And what comes out the  
6 other end is we make equal amounts of water and  
7 gasoline. That's very clean water. We recycle  
8 all that water back to the steam methane reformer,  
9 and you take that gasoline and put it in your car  
10 and drive away.

11 Or, we can make a low vapor pressure  
12 gasoline and put that right in with the crude, not  
13 raising its volatility at all, and have that taken  
14 off site from the wellhead, therefore, not needing  
15 any additional infrastructure to get our product  
16 off the wellhead.

17 This is a picture of the plant. It's  
18 about the same size as you would see in the  
19 Bakken. It would be about an acre, slightly less  
20 than an acre. It would be -- it is remotely  
21 operated. It only needs maintenance once a year.  
22 The only moving parts on it are really

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1 compressors, and there are lots of people in the  
2 oil patch that can repair compressors if that's  
3 necessary.

4           We are operating this several thousand  
5 hours now. We're operating 24/7. Anybody that  
6 would like to come see it, you're welcome to come  
7 see it in New Jersey. As I said, these are  
8 available today for purchase and people are taking  
9 them.

10           This is another view of it. The two  
11 pieces are where you make syngas on the right side  
12 of that picture, and then you make gasoline on the  
13 left side of that picture.

14           The system would arrive, would be  
15 manufactured at a remote location on skids. Would  
16 take about 20 to 30 tractor-trailers, depending on  
17 the site, bring them in and bolt them together.  
18 Have a relatively small footprint. As I said,  
19 it's basically water neutral, which is very  
20 important in large sections of the country.

21           Emissions are also very low. Our  
22 emissions are very low, in fact, we're no problems

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1 getting permitted in zero attainment zones in  
2 Texas. So you can see that it's a green -- it's  
3 not green, but it is certainly a low-pact  
4 technology.

5           We have very low maintenance, which is  
6 key for these areas out there. And we can also  
7 make a variety of products. We will be making  
8 diesel. We're making it in the lab now, and we  
9 will transfer that technology upstream to our unit  
10 to be making diesel later this next year.

11           MODERATOR KELLEY: George, if you could  
12 please conclude your comments as soon as you can.

13           MR. BOYAJIAN: Last slide, only take me  
14 a second.

15           So we feel that we can -- we serve all  
16 of the stakeholders. We serve the landowner, more  
17 royalties; we serve the people that are operating  
18 the plants, they get more money; and the  
19 environmentalists get to clean up the methane and the  
20 CO2.

21           Thank you for your time.

22           MODERATOR KELLEY: Thank you.

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1           Now I'd like to introduce Matt Rose, who  
2 joins us a little bit late. Matt Rose is the  
3 Executive Chairman of BNSF.

4           Mr. Rose.

5           MR. ROSE: All right. I brought some  
6 great slides, but you're going to have to go out  
7 on a website. To save some time, I'm not going to  
8 use them, but they're really cool slides with  
9 locomotives and things like that.

10           I wasn't late because I was out  
11 counseling all my capacity projects because all  
12 this pipeline talk; I was late talking to someone  
13 outside, so forgive me for being late.

14           I'm going to talk about three things.  
15 First, what we burn, what we haul, and then third,  
16 what we need from our Government partners.

17           First, a little bit of what we burn. We  
18 burn about 1.3 million gallons of #2 diesel a  
19 year. And you may have heard our commercials, one  
20 ton of freight can be moved 500 miles on one  
21 single gallon of diesel. We call that pretty good  
22 fuel efficiency.

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1           And if you'd look back to 1980, we've  
2 actually improved our fuel efficiency by 100  
3 percent. And we know that we're going to continue  
4 to make improvements in that as well.

5           Even given that though, we've got a  
6 fairly large project to look at converting diesel  
7 to LNG. We now are in a pilot project with  
8 oversight by the FRA, and we're really excited  
9 about this and we think over the next several  
10 years that we can make this move into LNG.

11           Secondary, what we haul. Well, we're  
12 the largest ethanol hauler. We haul about 100,000  
13 units a year in ethanol. We're the largest coal  
14 hauler, primarily out of the Powder River Basin,  
15 as well as Montana. EPA regs certainly have an  
16 opportunity to realign our coal business and we'll  
17 watch that carefully.

18           And then third, something you've heard a  
19 lot about today is crude by rail. We're currently  
20 hauling about 800,000 barrels a day of crude by  
21 rail, and about five and a half years ago, that  
22 number was zero.

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1           So you've heard some of the challenges  
2 and opportunities of hauling crude by rail, and  
3 let me give you my perspective of them. There's  
4 really two.

5           First is our safety and second is  
6 capacity. But first, let's talk about safety.

7           We have to start with the fact that  
8 we're an incredibly safe industry and we've had a  
9 great record of hauling crude by rail, 99.97  
10 percent damage free perfect delivery. We look at it  
11 as a three-legged stool: prevention, mitigation  
12 and response.

13           First, prevention is all about  
14 preventing any derailments, and we've had just  
15 enormous amount of technology that's come into our  
16 business, and that's why we uphold the safety  
17 record that we have today.

18           Mitigation's really about tank car  
19 standards. You heard that mentioned today. We  
20 believe in what we call the next generation tank  
21 car that's going to be wider, thicker, heavier.  
22 It's going to prevent punctures and it's going to

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1 be able to remediate any spill that we have in a  
2 potential derailment.

3           And third area is in operating  
4 practices. The Secretary issued an Executive  
5 Order for the railroad industry, and we also  
6 reached a voluntary agreement on speed  
7 restrictions, as well as other operating practices  
8 as well.

9           The second challenge we have is  
10 capacity. Oil is just but one product we haul.  
11 At BNSF, it only represents about 5 percent of the  
12 products that we actually handle. You heard that  
13 mentioned today as well.

14           So any operating restrictions, slowing  
15 down trains, needs to be thoughtful in context of  
16 the broader network of ag, intermodal, forest  
17 products, and everything else we handle.

18           We are responding to it though. Since  
19 the year 2000, we've spent \$50 billion on capacity  
20 to improve our railroad. This year we're spending  
21 \$5 billion. We'll spend about \$400 million in the  
22 state of North Dakota, and about \$800 million in

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1 what we call our highline, which connects a lot of  
2 the oil plays.

3           However, growth, it is huge. In just  
4 this state alone, North Dakota, in the last five  
5 years, we've handled -- we've increased our units  
6 in and out of the state by 144 percent. Just  
7 think about that. Five years, 144 percent. North  
8 Dakota, over a 5-year period, not 1-year period,  
9 is growing about five times the national economy.

10           Finally, what do we need from our  
11 Government partners? First among equals, let's  
12 get the tank car standard out in a way that  
13 reduces risks significantly, but still allows the  
14 railroad to operate in a manner that allows the  
15 other 95 percent of our shippers to enjoy the  
16 needs of the rail industry.

17           Second, LNG has a great promise to be  
18 the fuel of the future for the railroad industry,  
19 but we need help in the regulatory environment to  
20 facilitate that transition.

21           Third, currently, we have a railroad  
22 industry that is investing record amounts of

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1 capital into the business while the highway fund  
2 is growing broke, as you heard also earlier today.  
3 And that's all with public money, where the  
4 railroad industry's all with the private money.

5 As our policymakers grapple with the  
6 future, let's make sure that there's no unintended  
7 consequences that would negate the effect of the  
8 railroad industry.

9 Thank you for inviting me here today.

10 MODERATOR KELLEY: Thank you, Mr. Rose.

11 So now let's turn to a few questions.

12 So I'd like to start with -- we heard  
13 about some great projects that you all are  
14 involved in, great electricity T&D, pipeline T&D,  
15 rail transport, renewable energy generation. But  
16 what specific challenges are you facing here in  
17 this region? Can you talk a bit more about those  
18 challenges?

19 Let's start here with you, Bob.

20 MR. STEEDE: Well, I think the panel  
21 earlier today about personnel is definitely one of  
22 the challenges that I don't think that you could

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1 ever talk about challenges in North Dakota without  
2 bringing that issue up. Attracting and retaining  
3 good people is a really big issue.

4           You know, I think a lot of times we talk  
5 about different things and we're talking about it  
6 from our own perspective, about how integrated  
7 everything is and how much we rely on each other.  
8 The pumps on pipeline system don't work very well  
9 without an adequate electrical supply.

10           So a lot of the things that we all are  
11 doing are very linked together, and getting all of  
12 these different things to line up at the right  
13 time, the right schedule in a predictable way is  
14 really a big logistical challenge for us.

15           MODERATOR KELLEY: Thank you, Bob.

16           Mindi, any comments?

17           MS. SCHMITZ: No, I think (inaudible).

18           MODERATOR KELLEY: Sure.

19           George.

20           MR. BOYAJIAN: Well, I think our biggest  
21 challenge is watching the maturation of the  
22 regulatory process appear from looking at, you

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1 know, waivers for flares that, you know, were  
2 always granted to the evolution to needing a flare  
3 mitigation plan before you get a drilling permit.  
4 And as the state evolves and begins to enforce  
5 that, I think we'll see a greater demand for flare  
6 solutions. Until that happens, you know, we'll be  
7 waiting to serve that market.

8 MODERATOR KELLEY: Thank you.

9 Matt.

10 MR. ROSE: Well, we talked a lot about  
11 infrastructure today, and certainly when we're  
12 dealing in the state of North Dakota alone, the  
13 state's been very good to work with in terms of  
14 facilitating permit processes. When we get the  
15 Federal Government involved, we end up with very  
16 much a sequential permitting process, which can  
17 elongate out that permitting process by literally  
18 years and years and years. And I promise you that  
19 if we don't fix that long term, what we'll find is  
20 that we won't be able to get the permits, even if  
21 we have the capital to be able to make the  
22 improvements in terms of infrastructure.

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1           MODERATOR KELLEY: Thank you.

2           My next question's really built on a  
3 comment that Mindi made about the R&D  
4 opportunities that exist and some of the R&D  
5 that's happened already.

6           I'm just curious to know, do the rest of  
7 you feel that there are indeed deficiencies in the  
8 technologies that you work with or opportunities,  
9 if you will? And if so, is there a role for the  
10 Federal Government there to aid in that area?

11          Bob, would you like to start?

12          MR. STEEDE: Sure, I can start.

13          There's always opportunities.  
14 Technology's always advancing, always improving,  
15 making things more efficient, making things  
16 smaller, making things just better. You know, if  
17 I pull out a pump on a pipeline from 1950 and I  
18 compare that to a pump today, the efficiency level  
19 is nowhere near each other.

20          I would not say that we're to a point  
21 where we've got it mastered. There are things  
22 that we can do to continually do things better, to

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1 continue to use energy more efficiently, and  
2 that's something that we should always strive to  
3 continue to push that envelope.

4 MODERATOR KELLEY: Thank you.

5 Mindi, did you have an additional  
6 comment?

7 MS. SCHMITZ: Yeah. I'd just like to  
8 say, I mean, we think it's very important to  
9 continue to advocate for policies that fund a  
10 robust research and development, I mean, that's  
11 definitely a significant role that the Federal  
12 Government should be playing.

13 MODERATOR KELLEY: Thank you.

14 George.

15 MR. BOYAJIAN: On the Federal side, you  
16 know, the challenge there is the DOE gives out a  
17 lot of money for new technologies. You know, we  
18 all have our issues with the process. I find the  
19 better the grant writer, the better the  
20 possibility of getting money as opposed to better  
21 the technology, and that's a challenge you see  
22 across a variety of areas. I think (inaudible) is

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1 doing a very good job in this area. I think it's  
2 extraordinary the work they're doing.

3 So, you know, the Feds are doing a  
4 pretty good job in terms of supporting basic  
5 research, certainly. There could be done more  
6 there.

7 And then on the applied side, I think if  
8 we could get some more public-private partnerships  
9 on deployment, whether it be through, you know,  
10 some at the state level of maybe through the EERC  
11 and their relationship with the private sector and  
12 maybe bringing some federal money to implement  
13 some of these technologies and test them out more  
14 quickly, that would be a great help.

15 MODERATOR KELLEY: Thank you, George.

16 Matt, any comments?

17 MR. ROSE: No comment.

18 MODERATOR KELLEY: Okay, thank you.

19 So I'll ask my last question here, and  
20 this is the same one as I asked the last panel.

21 You have the QER Task Force here before  
22 you. You have an opportunity to provide them with

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1 one suggestion and a role for the Federal  
2 Government in helping to improve the challenges  
3 that you laid out here. What is that suggestion?

4 And why don't we start at the end with  
5 you, Matt.

6 MR. ROSE: I think just certainty of the  
7 regulatory structure tax policy will allow private  
8 industry to build out in a way that the capital --  
9 there's plenty of capital to do all this we need  
10 to do.

11 I've been in leadership of this company  
12 for almost 15 years, and I spent the two-thirds of  
13 my career watching every manufacturing company  
14 that we do business with try and leave this  
15 country. Every chemical manufacturing process  
16 leave this country. And this whole shale play,  
17 low natural gas and now the liquids is changing  
18 our country in a way that's, you know, we never  
19 thought possible.

20 I mean, it was just six years ago that  
21 we -- you know, people were declaring that we had  
22 peak oil, and one of the big banks said that, you

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1 know, the future of oil is going to be \$250 within  
2 five years. And this has an economic drop to it  
3 that's unbelievable, but we've got to have  
4 regulatory certainty.

5 MODERATOR KELLEY: Thank you.

6 George.

7 MR. BOYAJIAN: The implementation of new  
8 technologies -- innovative technologies is a great  
9 challenge for companies. Private -- in high-tech  
10 industries, private equity, venture capital will  
11 throw money into it. There are enormous returns  
12 on information technologies with relatively low  
13 capital risk.

14 When you're dealing in commodity  
15 technologies, the hurdle rates for returns are a  
16 little bit more challenging for private equity.  
17 So first, the kind of technologies investment  
18 dollars are harder to get.

19 So this is where I come back to the  
20 private-public partnerships. You know, all  
21 companies are very happy to be the first to be  
22 second with the new technologies. And if the Feds

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1 step in or the state steps in and helps some of  
2 these, you know, public-private partnerships to  
3 help these new companies take on technologies, to  
4 be first to be first, that transition from the lab  
5 to the marketplace will go much faster, and it  
6 will track more private investment, and that's a  
7 great way for the Federal Government to step up.

8 MODERATOR KELLEY: Thank you.

9 Mindi.

10 MS. SCHMITZ: I'd just like to emphasize  
11 the importance of the renewable energy industry  
12 here in North Dakota. This has been pretty oil  
13 and gas heavy, and so I just want to reiterate  
14 that and the opportunity that the Department might  
15 have in working with MISO to make sure that we  
16 have adequate transmission here for particularly  
17 wind transmission in our state.

18 MODERATOR KELLEY: Thank you.

19 And, Bob.

20 MR. STEEDE: I think the Senators put it  
21 well earlier today when they were talking about  
22 predictability and certainty. When you're talking

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1 about investing the type of dollars that are being  
2 invested in the energy industry here in North  
3 Dakota, and then you couple that with looking to  
4 get payback over a multiple decade period of time,  
5 continued certainty around things like the rate-  
6 making process in the FERC, some of those types of  
7 things are important to continue in the future.  
8 And there's probably other areas where there could  
9 be some increased certainty around duration of  
10 obtaining permits.

11 MODERATOR KELLEY: Thank you.

12 Well, once again, we had a great  
13 discussion here. I'd like to thank all of our  
14 panelists. Please join me in thanking them.

15 (Applause.)

16 MODERATOR KELLEY: So now I'd like to  
17 invite our third panel up to the podium here.

18 And as they're gathering here, once  
19 again, just a reminder, if you'd like to comment  
20 after this panel, we are going to open up for the  
21 public comments. So please make sure you indicate  
22 that on the sign-in sheet at the entrance.

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1           And for those of you who are joining us  
2 via livestreaming, please submit your comments up  
3 to QERcomments@hq.doe.gov.

4           And as they're making their way up here,  
5 I'd like to remind you that the views expressed by  
6 the panelists here are their own, and not the  
7 views of the Administration, including the U.S.  
8 Departments of Energy, Transportation, and  
9 Interior.

10                   (Panel 3 takes the stage.)

11           MODERATOR KELLEY: Okay. Up here, I'd  
12 like to welcome our next panel who will be  
13 discussing Responding to Changing Infrastructure  
14 Needs.

15           Joining me are Mike Turner, Senior Vice  
16 President of Hess Corporation.

17           Brian Kalk, Chairman, North Dakota  
18 Public Service Commission.

19           Claire Vigesaa, General Manager of the  
20 Upper Missouri Power Cooperative.

21           And David L. Goodin, President and Chief  
22 Executive Officer of MDU Resources Group,

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1 Incorporated.

2 Welcome.

3 Mike, would you like to start us off?

4 MR. TURNER: Sure. Thank you, Chris.

5 Good afternoon. My name is Mike Turner.

6 I'm the Senior Vice President for Hess in charge  
7 of their global onshore assets across the globe.

8 I am very pleased to have this  
9 opportunity to participate in today's meeting and  
10 to provide some insights and general views on both  
11 the challenges and opportunities involved in the  
12 ongoing planning and build-out of the key  
13 infrastructure projects in the Bakken region.

14 The Quadrennial Energy Review will serve  
15 as a roadmap for moving this important work  
16 forward and will play a critical role to ensure  
17 that the process is successful.

18 I would like to take a moment on behalf  
19 of Hess to commend Secretary Moniz, the Department  
20 of Energy, and all the other State and Federal  
21 agency representatives who came here today for  
22 their considerable time and attention they

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1 continue to play in this matter.

2           As many of you know, Hess has had a  
3 significant local presence here in North Dakota  
4 for generations, going back to when we drilled our  
5 first well here nearly 65 years ago. We are proud  
6 both of the reputation we have been able to  
7 cultivate here over time, and also the work we are  
8 doing today to invest in North Dakota's future;  
9 specifically helping to deliver on many of the  
10 long-term priorities for this region that have  
11 been previously referenced by a number of  
12 panelists. As Senator Hoeven mentioned earlier,  
13 that the oil boom has gone through many years of  
14 cycles, and Hess has been here through thick and  
15 thin.

16           By way of introduction, let me provide  
17 just a few more relevant operational statistics  
18 about Hess.

19           Today, we have 13 drilling rigs running  
20 and approximately 830 wells operating across the  
21 area of roughly 640 acres in the state, all  
22 serviced by what we call a world-class workforce

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1 of about 4,000 individuals.

2           The expansion of our Tioga Gas Plant  
3 earlier this year has allowed us to double our  
4 natural gas processing capacity with plant gross  
5 inlet capacity of 250 million cubic feet of gas  
6 per day. The plant has the potential to reach 300  
7 million cubic feet of gas per day with the  
8 bottlenecking.

9           That amount is matched by an increase in  
10 our current Bakken oil production of 90,000  
11 barrels a day equivalent, with an exception to  
12 reach more than 150,000 barrels of day of oil in  
13 2018.

14           And in this period of less than three  
15 years, we have invested over \$1.5 billion to  
16 specifically grow and enhance North Dakota's  
17 energy infrastructure. That figure represents  
18 only a fraction of our total investment here,  
19 which stands at more than \$10 billion since 2010.

20           These statistics tell part of the story,  
21 but I hope they demonstrate the strength of our  
22 commitment to working with everyone here to

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1 promote the kinds of investments needed to ensure  
2 the future health and wellbeing of this region.

3 Hess is proud to call North Dakota home  
4 since 1951, when we drilled the first commercial  
5 oil well here in the state back in the '50s.  
6 There are families in North Dakota who have been  
7 tied to Hess for over three generations and  
8 counting. We try to grow them young and grow them  
9 up fast as we go through.

10 Our employees and their families  
11 continue to live here in all the towns of North  
12 Dakota. And they enjoy the bounties of the North  
13 Dakota landscape, they rely on clean air and water  
14 and the high quality of public schools that are  
15 here in North Dakota. In short, Hess cares about  
16 North Dakota and its overall infrastructure.

17 Of course, the fact that North Dakota  
18 has become the second largest oil-producing state  
19 in the country, which was mentioned earlier, in  
20 the largest oil-producing nation in the world, it  
21 is a starting achievement given where we were just  
22 a few years ago.

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1 Hess is proud of the work we have done  
2 and continue to do to contribute to the  
3 achievement, but it is even more important to  
4 recognize the critical role that the state  
5 leadership has played in making the renaissance a  
6 reality.

7 North Dakota has worked hard to create a  
8 regulatory framework here that can serve as a  
9 guide, and even a blueprint, for the other states;  
10 one that encourages resources to be developed, but  
11 only within a comprehensive regulatory structure  
12 that ensures this work takes place in the safest,  
13 most responsible, and most technologically  
14 advanced way possible.

15 Technology is at the core of our  
16 company, and in Bakken, we continue to apply the  
17 best technologies available to challenge and find  
18 safe and responsible ways to convey our product to  
19 market. As you might expect, our ability to  
20 safely and reliably transport the products we  
21 produce here depends on quality and reliability of  
22 access to key infrastructure, and that's why we're

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1 here today. Specifically, tank cars, loading  
2 facilities, rail lines, pipelines, and gathering  
3 lines that make our entire enterprise run on a  
4 daily basis.

5           So over the last year or so, we have  
6 seen the topic of crude-by-rail transport rise to  
7 a level of national importance, and you heard a  
8 lot about that today.

9           Hess commends the continued and  
10 persistent efforts being led by the Administration  
11 and Secretary Foxx to address the various safe  
12 concerns which have emerged. Inherent with this  
13 process is a necessity to manage this evolution in  
14 a well-ordered and effective manner. Contrary to  
15 what you may think, the shale phenomenon in North  
16 Dakota didn't reach its present historical levels  
17 overnight. As we collectively look to enhance the  
18 present system to ensure its sustainability in the  
19 future, prudence dictates that we proceed with  
20 proper deliberation, using science-based data and  
21 on timetables that reflect what is technically  
22 possible and practically achievable.

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1 Hess looks forward to working with the  
2 Department further in the near-term to determine  
3 the best way to achieve our common goal of safe  
4 crude-by-rail transportation.

5 Another challenge in the Bakken has been  
6 and continues to be the lack of necessary  
7 infrastructure in place to capture associated gas.  
8 As I noted earlier, Hess had made a major  
9 investment in growing the infrastructure of the  
10 Bakken, including completion of our Tioga Gas  
11 Plant. In addition, Hess has several gas  
12 gathering projects underway which will add as much  
13 as 60 million cubic feet of gas per day throughout  
14 the state.

15 Notwithstanding the good progress that  
16 Hess has made in this area, the regulatory process  
17 for gathering gas and even intrastate pipeline  
18 approvals can be complex, to say the least. The  
19 regulatory process could be improved if the  
20 multiple agencies involved, both State and  
21 Federal, were to adopt a more streamlined and  
22 interconnected system.

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1           For instance, in addition to several  
2 significant Department of Interior steps, such as  
3 right-of-way applications, NEPA reviews, National  
4 Historic Preservation Act 106 consultation and  
5 Endangered Species Act determinations, companies  
6 also need to interact with the Army Corps of  
7 Engineers on multiple water issues, and the  
8 Forestry Service on specific land access and  
9 permitting approvals, in addition to several state  
10 specific departments and commissions here in the  
11 North Dakota area. We are really committed to  
12 meeting all regulatory requirements and work hard  
13 with all agencies, but the multiple agencies and  
14 stakeholder involvement, the process is time  
15 consuming and very complicated.

16           Clearly, the infrastructure is essential  
17 to the future development of the Bakken, not just  
18 for Hess operations, but to the wider industry's  
19 ability to develop oil and gas resources safely  
20 and responsibly, and to determine them in a  
21 reliable way to customers across all of North  
22 America.

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1 Streamlining the current system to  
2 properly rationalize and simplify that process is  
3 essential; not just to Hess, but to the entire  
4 industry. We would ask that QER consider how best  
5 to modernize this system to ensure it is fit for  
6 purpose.

7 I can kind of answered my question  
8 already, so I'll come to it again.

9 At Hess, nothing is more important to us  
10 than in business is safety. Be it in the  
11 investments that we made several years in our safe  
12 railcar fleet, we're the first to come up with a  
13 new railcar design two years ago, to introducing  
14 state-of-the-art loading terminals with an array  
15 of enhanced features, to multi-grade upgrades and  
16 expansion of our Tioga Gas Plant. We're committed  
17 to operating in a secure and responsible manner  
18 because our people live here.

19 We stand ready, willing and eager to  
20 work with the State and Federal officials to  
21 ensure that Hess is not just in compliance with  
22 applicable regulations, but we are leading the way

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1 and exceeding expectations to all regulatory  
2 agencies. Our best practice for our entire  
3 industry is to do that.

4 We look forward to our continuing role  
5 in the safe development of the Bakken and its  
6 resources.

7 And thank you, Chris, for our  
8 opportunity to speak.

9 MODERATOR KELLEY: Thanks, Mike.

10 Brian.

11 MR. KALK: Thank you, Chris. Thanks for  
12 coming out. I appreciate your -- what did you  
13 say, the views of this panel do not represent the  
14 views of the Administration?

15 MODERATOR KELLEY: Yes, that's right.

16 MR. KALK: Fair enough. So I'll put out  
17 that my caveat, the views of Commissioner Brian  
18 Kalk don't express the views of the Public Service  
19 Commission. Randy Crisnan (ph) is a colleague of  
20 mine in the Commission, and Julie Padorchek (ph),  
21 they were both here earlier today, and I'm sure  
22 they're back doing some other things at work and

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1 so the three of us work hard to get it. Also,  
2 Jerry Leon, I see from staff is over there.

3 Jerry, raise your hand. And look behind  
4 Jerry, my wife is here, so I must be late for  
5 something else, so -- all right, Honey.

6 You know, I don't have a lot of prepared  
7 remarks, and anybody that knows me knows I'm too  
8 ADD to prepare any remarks. I'm just going to  
9 kind of go off the cuff.

10 But I would like just to step back a  
11 little bit, that I really appreciate the Secretary  
12 coming up here and getting a viewpoint.

13 But I want to go back to a viewpoint  
14 that I had in the '80s growing up here in North  
15 Dakota. The state didn't have much of a future.  
16 We were coming out of an energy boom that had gone  
17 flat. There was no jobs. Kids were leaving the  
18 state in droves. There was nothing here. I ended  
19 up joining the Marine Corps, I was gone for 20  
20 some years. I remember being in Desert Storm when  
21 Hussein lit the oilfields on fire, and I remember  
22 to thinking myself, you know, we're using energy

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1 as a weapon. And here we are fighting wars over  
2 energy; we should be developing more energy at  
3 home.

4           A few years later, I was more senior in  
5 Iraq this last time around, same kind of thing,  
6 we're over there. There's a lot of oil on the  
7 ground. There's a lot of different reasons why  
8 you go to different places, but I'm absolutely  
9 committed to the more energy we produce at home is  
10 better for foreign policy. It's better for North  
11 Dakota.

12           And that's the mindset that we have to  
13 have when we look at what's going on in North  
14 Dakota and going on nationally, there's always  
15 going to be the boo birds out there that, you  
16 could have done this, you should have done this,  
17 you could have done that. Well, you know what,  
18 fine, but we're moving the needle the right way.

19           When you look at what's going on in  
20 North Dakota right now with all the development of  
21 our oil, of our natural gas, of our wind, of all  
22 these potentials, it's a really good thing. You

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1 know, we have to change as infrastructure needs  
2 changes, and these gentlemen that are in charge of  
3 these companies have a very challenging job trying  
4 to predict the future, but we cannot forget how  
5 important it is to manage what we're doing, but  
6 don't forget how important the variables that  
7 North Dakota is bringing to this larger national  
8 network, because you go back, what's the price of  
9 oil a barrel now? Well, it'd be a lot more if we  
10 didn't have the Bakken. What's the choices  
11 overseas? They'd be a lot less if we didn't have  
12 the oil back home.

13           So that's the viewpoint that I bring to  
14 the Public Service Commission over the last six  
15 years. And I will say one of the challenges that  
16 I think when you respond to change, Mike talked  
17 about it a little bit, the biggest frustration I  
18 have in the Commission is these seams in  
19 jurisdiction where, you know, you have a pipeline.  
20 There's your gathering line, and there's your  
21 intrastate line, then there's your interstate  
22 line, you know, so anything we can do to cut down

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1 those seams and have a better understanding,  
2 that's definitely something that would help out  
3 all of us because that becomes a frustration where  
4 I can do my part about approving a transmission  
5 line for MDU or for Basin, but if the other  
6 agencies that are involved, whether it be the Fish  
7 & Wildlife, or the Game & Fish, or the Corps of  
8 Engineers in a pipeline, if they sit on their  
9 hands and don't make a decision, it doesn't help  
10 the process.

11           So if we're going to make these changes,  
12 they have to be able to get a decision point  
13 quickly. I don't like when we have a project that  
14 just sits there, nobody gets to the decision.

15           So one thing the Public Service  
16 Commission, we develop our record, we get to a  
17 decision point, we make a decision, we move  
18 forward on it. So that's where I think that the -  
19 - when you're responding to the infrastructure  
20 changes, that you have to understand what the  
21 future will bring not knowing what the future is.

22           So anything that we can have commonality

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1 in as we build projects that come in front of us  
2 is very important.

3 I would just take a couple of minutes  
4 and just share some of my thoughts, I guess, on  
5 different things that we're looking at for North  
6 Dakota.

7 I heard a little bit about transmission  
8 alliances, as already been discussed, but I think  
9 it's very, very important that we continue to  
10 bring regional transmission organizations into the  
11 state.

12 MISO Is already in the state. Basin  
13 Electric has moved forward with Southwest Power  
14 Pool. I think that is going to be a great  
15 opportunity. I think Claire's going to talk about  
16 how much more electricity we need in North Dakota.

17 But having these regional transmission  
18 organizations coming into the state is a really  
19 good thing because it helps us better manage  
20 change because it gives us more opportunities.  
21 We're not reliant on just North Dakota to develop  
22 the electricity, now we can perhaps when North

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1 Dakota doesn't use all the energy at some point,  
2 we can move it to the south or to the east. At  
3 times in the south and east when they don't need  
4 that energy, they can move it back to us. I think  
5 that's absolutely something that we need to stay  
6 committed to.

7           Area of wind development. When I first  
8 got in the Commission, we saw a lot of wind farms  
9 in the state. Some was driven by the renewable  
10 mandates in different states, but a lot of it was  
11 it just seemed to be the right mix. There was a  
12 cooling off period, if you will, of wind the last  
13 two years, but now I kind of see more wind  
14 projects coming this way, especially with the need  
15 for the energy. And I think Mike Eggl talked  
16 about.

17           The only thing on the table right now  
18 for energy development in North Dakota is some  
19 type of gas, whether it be combined cycle or  
20 simple cycle and wind. And we've got to change  
21 that. We need to put coal back into the mix.

22           We've actually -- a different discussion

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1 with, you've got (inaudible) Energy has got their  
2 dry planning. Southern companies coming up here  
3 in a while, but we've got to figure out a way to  
4 put coal back in the mix. You talk about  
5 uncertainty. These CO2 rules that are proposed  
6 don't help anybody. So you can take that back,  
7 these CO2 rules, put them in a drawer somewhere  
8 because they -- I mean, I'm serious about that.  
9 The country needs more energy, so you need nuclear  
10 power. You need coal-based power. We can build  
11 more natural gas. We can build more wind. But  
12 right now, these CO2 rules are perhaps the biggest  
13 -- these proposed rules are the biggest impediment  
14 that I think we might face in North Dakota. So  
15 we've got to keep coal in the mix.

16 Natural gas. The infrastructure I think  
17 is being built appropriately. There's been an  
18 interest to continue to reduce the amount of  
19 flaring, which is a good thing. The Commission  
20 has approved several projects by one note, several  
21 by Hess to capture the natural gas and to do  
22 things with it.

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1           There's a market for the natural gas if  
2 you can get it to your Oklahomas and to Chicago.  
3 The more things we can do for natural gas in North  
4 Dakota is really good too. We just don't have a  
5 lot of people there, and so you're going to have  
6 to have those export capabilities and I really  
7 look forward to those projects when they come in.

8           And when companies bring projects in  
9 front of the Commission, the better they do  
10 preparing them makes it easier for us to get to  
11 that decision, like I said, because if you've got  
12 companies that bring in a project that's not fully  
13 staffed out, it could get delayed. If you bring  
14 any, you've got your environmental review done,  
15 you've got your ship or review all those things,  
16 it's really easy for us to move those along.

17           Let's see here. Telecommunications. We  
18 haven't talked much about telecommunications  
19 today, but I put it down on my comments because  
20 not only are we having an energy boom in the  
21 state, we're having a telecommunications boom.  
22 Everywhere we go in the state, you need

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1 telecommunications, and we're trying to get the  
2 Telco's and your MidCo's and your AT&T's, we're  
3 trying to build a telecommunications network which  
4 is state of the art that supports the energy  
5 industry.

6           So I don't know if that's something that  
7 you'd want to look at that'd be things like  
8 changing universal service funds, changing federal  
9 policy on who regulates what. It may make it more  
10 challenging, continue the growth in North Dakota.  
11 We're very lucky now that with all these energy  
12 growth in the state, there's capital out there for  
13 your local Telco's to invest and your fiber optics  
14 to haul the traffic back and forth from these  
15 companies, but it should be noted that we need to  
16 continue to grow a telecommunication  
17 infrastructure in the state.

18           The concern that I have going forward  
19 about all of this is the backdrop of, let's  
20 develop our energy, let's do it wisely, let's not  
21 forget North Dakota's a farming and ranching  
22 state, and so we need to make sure we've got very

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1 good emergency response capabilities out there by  
2 every county having something because that's one  
3 thing that I really notice when we first started  
4 this growth, each county was really different and  
5 some had capabilities, some didn't. The  
6 (inaudible) in North Dakota had good emergency  
7 response capabilities, your local county,  
8 Bottineau County, Ronfrom (ph) probably didn't  
9 have much, but we've really moved the needle the  
10 right way, and that is, well, what you look at in  
11 ways that you have in commonality, whether it's a  
12 train, whether it's a pipeline, whether it's a  
13 tractor-trailer, you've got emergency response  
14 capability, everybody wins in that. So anything  
15 we can do in the emergency response is very  
16 important.

17           And I believe I'll just answer any  
18 questions that might come up, but thank you all  
19 for coming out today.

20           MODERATOR KELLEY: Thanks, Brian.

21           Claire.

22           MR. VIGESAA: Thank you. Thank you for

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1 the opportunity to share a little bit about the  
2 electric infrastructure expansion activity in our  
3 area.

4           Upper Missouri Power Cooperative was  
5 formed in 1957 to serve electric transmission  
6 needs of electric cooperatives. Today, Upper  
7 Missouri provides transmission services and power  
8 supply aggregation to ten electric distribution  
9 cooperatives. Five of them are in western North  
10 Dakota and five of them are in eastern Montana.

11           Our power supply comes from suppliers,  
12 Basin Electric Power Cooperative -- we receive our  
13 power from two major power suppliers: Basin  
14 Electric Power Cooperative, Mike Eggl was at the  
15 last panel -- that's our power supplier, again,  
16 from Western Area Power Administration.

17           Our Upper Missouri family now serves  
18 63,000 meters covering over 51,000 square miles in  
19 eastern Montana and western North Dakota. And our  
20 service territory is roughly the size of Virginia,  
21 Maryland, and Delaware combined, and even throwing  
22 in Washington, D.C. But our customer base, of

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1 course, and density is much, much lower, averaging  
2 about two meters per mile.

3           Upper Missouri, like other electric  
4 cooperatives, operates on a non-for-profit basis.  
5 That means we do not exist to provide profits to  
6 investors, but rather solely to provide affordable  
7 and reliable electric service to our members.

8           For our members, reliability is  
9 paramount, but in rural America, affordability is  
10 also very important. It's our responsibility to  
11 ensure that energy is delivered reliably and at  
12 the lowest possible cost.

13           Now, today, Upper Missouri's area has  
14 been transformed into a world-renowned oil and gas  
15 exploration play. Nearly every one of the 184  
16 drilling rigs in North Dakota is in our region,  
17 and we've seen explosive energy sales -- pardon  
18 the pun -- and demand growth from 186 megawatts --  
19 and now my Legos come out, it's been 50 years  
20 since I got first set -- but, in 2004, we were a  
21 186 megawatt system. Today, in 2014, ten years  
22 later, we are an 800 megawatt system representing

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1 nearly 25 percent of Basin Electric's sales.

2           While the past few years, growth has  
3 been phenomenal, the next ten years or next few  
4 years will be phenomenal on steroids. The  
5 introduction of new drilling technologies,  
6 improved operation systems, multiple well drilling  
7 pads, new efficiencies, flare gas recovery will  
8 accelerate demand for electric energy in the  
9 region. The Upper Missouri family, the ten  
10 cooperatives I've mentioned, will double its 2013  
11 demand and energy sales by mid 2016, growing to a  
12 1400 megawatt system and 9,000 gigawatt hours of  
13 sales.

14           Our conservation forecasts suggests that  
15 Upper Missouri will need -- my last Lego -- 2,153  
16 megawatts of capacity and will have energy sales  
17 of 12,000 gigawatt hours by the year 2014. So in  
18 just ten more years, we have much to do.

19           I suggest that this is conservative  
20 since heavy investment in oil and gas exploration  
21 and recovery technology could influence the rate  
22 of growth dramatically. What we're saying is we

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1 think the oil and gas industry is doing a good  
2 job.

3 Over the past ten years, Upper Missouri,  
4 its ten distribution electric cooperatives and our  
5 power supplier, Basin Electric, have made huge,  
6 huge investments in transmission lines,  
7 transmission substations, distribution substations  
8 and generation to meet the rapidly growing energy  
9 requirements.

10 Again, I have to pause and this  
11 investment is thanks in great part to the generous  
12 aid to construction contributions from our oil  
13 companies like our panelists here from Hess,  
14 (inaudible), Continental and so forth.

15 So we have built in the last ten years  
16 1,139 miles of high voltage transmission lines, 25  
17 large transmission substations and switch yards,  
18 72 distribution substations, and 360 megawatts of  
19 new generation. Yet, as you saw in Mike's slide  
20 in the last presentation, transmission capacity is  
21 extremely tight. Today, and over the next two or  
22 three years, it's going to be very, very tight.

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1           Now, as an electric cooperative family,  
2 we have several hundred miles of new transmission  
3 line on the drawing board or in the permitting  
4 process. In addition to the transmission facility  
5 build out, our power supplier, Basin, is  
6 strategically locating gas generation and  
7 capacitor banks in the region to get us through  
8 this.

9           Further, Basin is entering into wind  
10 energy project contracts and has planned, like  
11 Brian just mentioned, to join the RTO SPP by the  
12 fall of 2015. These projects and initiatives are  
13 critical to assuring transmission capacity and  
14 power supply to the farms, homes, communities and  
15 industry in the region. We have literally no room  
16 for delays.

17           We are pressed in every direction, but  
18 remain committed to our cooperative principals and  
19 stewardship.

20           Now let's talk about our constraining  
21 elements. One of them is system and reliability  
22 and affordability. We as electric cooperatives

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1 are very safety and reliability conscious and are  
2 investing time and resources to build safe,  
3 stellar, affordable, and reliable systems. We  
4 will not compromise on safety or reliability.

5           But we're short on human resources  
6 power. Projects like I have described to meet the  
7 needs of this growth in 2024 is going to take an  
8 incredible amount of engineering and planning, and  
9 our traditional long-term planning isn't our  
10 luxury and labor supply is tight, so we are  
11 working hard to meet the needs of our industry.

12           Another element that's getting  
13 frustrating is for our landowners. And by what I  
14 mean by frustrating for the landowners, they're  
15 getting very weary of granting easements, so it's  
16 difficult for us to get easements for electric  
17 lines, for the gas industry, telecommunications  
18 industry, roads and petroleum pipelines.

19           Another impediment is the exhaust of  
20 work that it takes to get permits, for example, in  
21 rail crossings; public land crossing, whether it's  
22 the U.S. Forest Service, national grasslands or

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1 tribal lands. It's very, very difficult to get  
2 these things through and it's time-consuming, and  
3 it sometimes gets particularly awkward when our  
4 public lands which projects often rely on to  
5 private landowners. That bothers us.

6           And in two areas, as far as  
7 environmental stewardship, we have those same  
8 commitments to be good stewards of the land, but  
9 the processes is burdensome to get through some of  
10 this permitting.

11           And the same thing with endangered  
12 species, whether it's the sage grouse, eagles,  
13 whooping cranes, or so on, we have a long history  
14 of being good stewards in maintaining wildlife  
15 habitat. But it seems like regulations and the  
16 processes are getting more and more lengthy and  
17 burdensome for us. And so we desire balance in  
18 that area.

19           In summary, we take our jobs very  
20 seriously. We feel it's our responsibility to  
21 provide safe, reliable and affordable energy to  
22 our new member-consumers, as well as those that

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1 our legacy member-consumers. We feel proud to be  
2 a part of this oil and gas development, and we're  
3 pleased to welcome international businesses to our  
4 region, new business start-ups, as well as new  
5 families and workers from every state in our great  
6 country.

7 We consider our work a huge contribution  
8 to national energy -- I crossed off independence  
9 after Senator Hoeven's speech -- and change that  
10 to national energy security -- just pure national  
11 security and national economic viability and  
12 stability.

13 To meet the needs of the region, we'll  
14 be investing heavily to provide generation,  
15 transmission and distribution services, but we'll  
16 need critical cooperation from our landowners,  
17 member-consumers, oil and gas companies, local  
18 governments, agencies, and yes, the U.S.  
19 Department of Energy, and EPA and others. Thank  
20 you.

21 MODERATOR KELLEY: Thank you, Claire.

22 David.

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1 MR. GOODIN: Thank you, Chris.

2 And thank you for the opportunity. We  
3 appreciate MDU Resources being part of this panel  
4 today and we appreciate the principals from  
5 Washington and our Senators, as well as our  
6 Congressman and our Governor helping to host this  
7 QER Review.

8 MDU is diversified energy and  
9 infrastructure company with very deep roots in  
10 North Dakota. We've been here a little over 90  
11 years, in really what today is the heart of the  
12 Bakken. So some our forefathers saw the  
13 opportunity 90 years ago and we're seeing some of  
14 that coming to fruition today.

15 We actually operate in approximately 44  
16 states across the United States. I don't mention  
17 that to brag or boast, it's just is what it is.  
18 But the very fact is we have a fairly national  
19 perspective on things. But clearly activity in  
20 our backyard right here in North Dakota is a big  
21 driver to our business.

22 And so we did prepare remarks. They are

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1 provided and submitted actually to this panel, or  
2 this review, will be posted on the website. I'm  
3 going to divert from those remarks a little bit  
4 based on what I heard earlier today. I want to  
5 touch on several items that are actually contained  
6 within those remarks, but rather than read those  
7 remarks to you, you can read those at your  
8 leisure.

9           But I do want to comment on a few of the  
10 things because, again, we are in the  
11 infrastructure business and actually we find it as  
12 an opportunity, you might say, to provide  
13 infrastructure to America. We think America  
14 energy is kind of the life light of America. We  
15 heard earlier from even Enbridge Pipeline talking  
16 about their pumps don't do very well unless they  
17 have electricity running to those pumps, and we  
18 understand that very well.

19           A couple things that I'd like to talk  
20 about. We're really here to respond about  
21 changing infrastructure needs. And you've heard  
22 from Claire, you've heard from Mike Eggl with

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1 Basin Electric. I mean, the changing needs for us  
2 also. We do provide electricity eastern North  
3 Dakota, eastern Montana, parts of Wyoming, and  
4 parts of South Dakota. We're seeing some of that  
5 same load growth.

6           Some of the responses that we've had to  
7 that are add a generation. In fact, just Tuesday  
8 of this week, we commissioned our Heska Unit 3.  
9 You can open up some of the windows and look  
10 across the way, and it's actually commercial  
11 operation as of Tuesday. It's a \$77 million  
12 investment. It took about three years to  
13 conceive, permit, design, build, and implement,  
14 and that's expected timeline and frame.

15           That's actually fairly quick in today's  
16 environment. And you think of the changing needs  
17 -- I wish I'd have brought my Legos, Claire,  
18 that's great  
19 -- when you think about the changing needs, and I  
20 understand our Brethren too so far as adding  
21 generation, that is definitely a challenge, but I  
22 would say industry is up for it and we're very

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1 committed for it as well.

2           When I think, and I heard earlier  
3 Anthony Foxx talk about the infrastructure needs  
4 from the Department of Transportation, and he  
5 actually mentioned that it was a patch -- a 10-  
6 month extension from today. Actually, 8 months  
7 because MAP-21 funding for transportation road and  
8 highway trust fund, it would go broke by this  
9 September, that's next month. There's actually an  
10 8-month extension. So I compliment Congress that  
11 we could get an extension, but it was only an 8-  
12 month extension. In fact, the extension that  
13 we're working under was a 2-year extension.

14           So again, I heard Senator Hoeven and I  
15 appreciate his efforts. I'm sure Senator Heitkamp  
16 and others, but a 6-year bill would clearly be  
17 advantageous, we believe, because we do roads and  
18 bridges across the U.S. and we know that some  
19 certainty with states is important as well.

20           We know out in the Bakken and across  
21 North Dakota, there's a deficiency in diesel. We  
22 are undergoing with a partner to provide a diesel

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1 topping plant 104 miles west of here just west of  
2 Dickinson, North Dakota. It is the first plant in  
3 the United States, a greenfield refinery, since  
4 1976. So you do the math, that's about 37 years.

5 We appreciate the support of regulatory  
6 environment that we did receive from the state.  
7 We heard earlier even from Matt Rose talk about  
8 regulatory certainty. Well, this is a plant that  
9 will be from groundbreaking to online, we expect  
10 in 20 months helping to fill a need --  
11 particularly in western North Dakota -- that will  
12 be both for energy, as well as agriculture from a  
13 diesel products perspective. Again, one of the  
14 lines of business that we're in.

15 When I think about natural gas, we think  
16 about natural gas being flared in North Dakota  
17 today, approximately 28 percent, I think was the  
18 last number recorded through the Industrial  
19 Commission. We actually have a project that we're  
20 in development stage right now to help get some of  
21 that natural gas to market. But it will take  
22 commitments from producers and users, as well as

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1 marketers, to help use that pipe.

2           But I think it's an example that  
3 industry will bring solutions to the table, yet  
4 again, the regulatory process will be important.  
5 And we also know that the market needs to support  
6 those kinds of projects. But we know if we start  
7 capturing vast majority of that 28 percent of  
8 natural gas, we know it's got to get to market one  
9 way, shape, or form.

10           I'd also like to mention on electric  
11 transmission, given that's one of our core lines  
12 of business. I heard earlier from a gal talking  
13 about renewable energy, needing that within the  
14 MISO, that's Midwest Independent System Operator,  
15 which we're a member of. We're underway with one  
16 of our partners, some of their principals are here  
17 today as well, to help provide a 345 kV, that's  
18 engineer speak for a 345,000 kilovolt line going  
19 from Allendale, North Dakota into Big Stone south  
20 -- just south of Big Stone City where Big Stone  
21 Plant is. That will help provide a greater  
22 interconnection between wind rich areas of North

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1 Dakota and helping to move those to markets, as  
2 well as a bilateral from other directions as well.

3 I know I've touched on just some very  
4 key areas as MDU Resources sees it. I know it's  
5 late in the day. I know we've got fervent people  
6 in the audience who wouldn't have stayed this  
7 long. I do appreciate your attention.

8 I think above all, we really do  
9 appreciate, particularly the support of regulatory  
10 environment, not just Mr. Kalk here today, but the  
11 other agencies in the state, whether it's  
12 permitting, oil, gas, refineries, as we look to  
13 permit and site transmission facilities. We've  
14 already got out siting permit here in North  
15 Dakota. We worked on that in South Dakota earlier  
16 this week. We really do appreciate that  
17 regulatory environment. Again, as Matt Rose said,  
18 regulatory certainty, the capital will follow, but  
19 where there's uncertainty, the capital will be  
20 hesitant.

21 And so with that, I'll turn it back to  
22 you, Chris.

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1           MODERATOR KELLEY: Thanks.

2           Okay. So let's turn to a quick  
3 discussion here. I missed an opportunity to ask  
4 Mike Eggl about electricity transmission, but I  
5 have some folks here that I'm sure would be  
6 willing to answer some questions.

7           So my question is, and I think there was  
8 a comment made about the need for transmission  
9 lines, some RTO's coming into the state to kind of  
10 move forward in the changing infrastructure need.

11          So do you see a Federal role here when  
12 it comes to bringing in those new transmission  
13 companies?

14          Let me open that up to whoever would  
15 like to address it first.

16          MR. KALK: I guess I'll jump in. There  
17 absolutely is a Federal role. The Federal  
18 oversight of the RTO is Southwest Power Pool, so  
19 that's a key role, and there's ongoing disputes  
20 right now within the RTO's, so the sooner that the  
21 Federal agencies involved with settling disputes  
22 between MISO and Southwester Power Pool, the

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1 better.

2           And also too, I think going back to, you  
3 know, this potential force of generation. But  
4 basically, I think the RTO discussion in North  
5 Dakota is going to shape itself out. The  
6 challenges, I think we're going to see in North  
7 Dakota -- and Mr. Goodin could probably talk to it  
8 better -- is that it's going to create a bunch of  
9 what's called seams issues where before it used to  
10 be Otter Tail and MDU just dealt with MISO, and  
11 now they're going to have to deal with MISO and  
12 Southwest Power Pool, and that could be some  
13 costs. So I think the role, the Federal thing is  
14 just try to keep the RTO's playing nice together.

15           MODERATOR KELLEY: Thanks.

16           Anyone else care to address?

17           MR. GOODIN: Yeah, maybe just as a  
18 reminder for the audience. The RTO's are really  
19 organizations that are deemed independent  
20 operators of systems, and actually, it's the  
21 incumbent, whether it's the GNT's or the IOU's, or  
22 the muni's that actually bring assets and

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1 generally continue to operate and own those  
2 assets.

3           So really, it's incumbent on us to, I  
4 guess, continue to own and operate our assets and  
5 advocate how we expand our systems. There tend to  
6 be an oversight agency, but I think it's yet to be  
7 clearly determined given there will be -- Brian  
8 mentioned about the seams issues potential between  
9 Southwest Power Pool and Midwest, a system  
10 operator, and we would not advocate for, I'll call  
11 it pancaking, of transmission tariffs that would  
12 ultimately end up in a customer's bill.

13           MODERATOR KELLEY: Claire, did you have  
14 any comment?

15           MS. VIGESAA: Yes. And I can just add  
16 to that. I know even just this week on Wednesday,  
17 MDU Basin, Western Area Power, SPP have been  
18 meeting together to work out those things, so  
19 there's hope.

20           MODERATOR KELLEY: Thank you.

21           Mike, I'll turn to you if you'd like to  
22 answer anything.

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1 MR. TURNER: I just turned the switch on  
2 and it usually works, that's why --

3 MODERATOR KELLEY: Okay. Great.

4 My next question. Since this panel is  
5 addressing changing infrastructure, I'd like to  
6 kind of just look forward into the future in maybe  
7 the next 10, 20, 30 years. What challenges do you  
8 see that maybe we haven't discussed yet, or if you  
9 want to emphasize a few, that you think might rise  
10 to the forefront in the future that haven't been  
11 considered?

12 MS. TURNER: Yes, I'll start.

13 First of all, I'd like to thank Claire  
14 for using petroleum products during his  
15 presentation. Thank you very much for the Legos.

16 I think someone touched on it earlier  
17 today, the evolution of a particular oil play is  
18 starting to happen here in North Dakota. Whenever  
19 you go into a large-scale development like we're  
20 doing right now, you start to drill a lot of  
21 wells. And as those wells get put on production,  
22 you start to build a significant infrastructure of

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1 producing assets in a basin.

2           So I see plenty of opportunity and the  
3 landscaping changing with more and more wells on  
4 production, and more and more activity that's  
5 homegrown activity. This is stuff that comes out  
6 of North Dakota and doesn't have to get flown in  
7 from all over the world. This is running a base  
8 business.

9           So a lot more need for steady, electric  
10 usage, things like that going down the way. Our  
11 recovery in the Bakken right now is down in the 10  
12 percent's, so a recovery of a reservoir in the  
13 Bakken is very, very low. The opportunity for  
14 enhanced oil recovery and increasing production in  
15 the Bakken past the current drilling phases is a  
16 reality. And we have a lot of research going on.  
17 I know we do at Hess and many universities and a  
18 lot of the other companies do to try to figure out  
19 how to get more recovery.

20           So the long-term value proposition for  
21 North Dakota is very, very strong, both in  
22 existing production and enhanced solar recovery

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1 going forward.

2 MODERATOR KELLEY: Thank you.

3 Brian.

4 MR. KALK: Well, just the -- I think  
5 trying to figure out what the new norm is going to  
6 be, I think one of the mistakes that was made  
7 earlier as we kept thinking this a one- or two-  
8 year oil play, and I think now we're thinking it's  
9 -- realizing it's decades. So the biggest  
10 challenge I think as the company is doing on how  
11 big they make stuff. You know, they build -- they  
12 have a 6-inch application pipeline that's filed  
13 with us, and by the time it gets to the hearing,  
14 they need a 12-inch pipeline. And so anything  
15 that can be done to refine the estimates -- I know  
16 people are working very hard on it -- that would  
17 really help out.

18 And I guess it's back to, I think the  
19 biggest challenge that I might face in the  
20 Commission is just the whole pipeline growth and  
21 safety piece of it. If we want to get the  
22 pressure off the rails, we'll need more pipelines.

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1 If we want to stop the natural gas flaring, we're  
2 going to need more pipelines.

3 And so the commonality in my viewpoint  
4 is getting the right pipelines in place, but using  
5 new technologies that maybe are still developing  
6 on better ways to monitor, better ways if there's  
7 leaks, and then getting back to that emergency  
8 response piece. So anything we can do in that  
9 area, I think is -- will help everybody out.

10 MODERATOR KELLEY: Thank you.

11 Claire.

12 MR. VIGESAA: I guess one think I think  
13 about even since I've been a child is, when I  
14 study science, the oil and gas industry is very  
15 research focused, and you can see what's happened  
16 here ten years at a time, and we have a lot of  
17 work to do in our industry. We're keeping up, but  
18 barely. So we aren't going to get relaxed here  
19 for a long time. And we wonder what your next few  
20 years of research and technology is going to do  
21 this, so we're preparing.

22 Thank you.

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1           MODERATOR KELLEY: David.

2           MR. GOODIN: What I think about one,  
3 two, and three decades from now, given what I  
4 think is general conventional wisdom, is we've got  
5 a longstanding resource here, and that's a variety  
6 of energy sources. They've all been talked about  
7 today. Whether it's the oil, whether it's the  
8 liquid rich gas, the ethanes, the butanes, the  
9 propanes. I think I can certainly envision an  
10 area where manufacturing, value-added activities  
11 become more prevalent within the state. I mean,  
12 there's already been some projects that have been  
13 talked about or in development stages that have,  
14 you know, made the paper.

15           But I think you could see an  
16 acceleration of that, because I think ultimately,  
17 manufacturing, whether it's been off-shored for a  
18 period of time, will be back on-shored because of  
19 low energy costs. And when the heart of the  
20 energy can be coming from North Dakota, I know  
21 smart people in the industry will tend to reduce  
22 their cost of sale goods as much as they can, and

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1 a major component of that tends to be energy.

2           And so I think as a result of that, we  
3 may see more and more businesses potentially  
4 worldwide be looking at North Dakota. Now that we  
5 are on the map, when we think about making the  
6 map, I happened to be overseas a while back, say  
7 you're from North Dakota, you're right, that  
8 Bakken thing, tell me more about it. And I tell  
9 you, these are folks that speak foreign languages.  
10 So they know what the Bakken is, but I just think  
11 we're see more and more of that interest that  
12 ultimately will actually happen.

13           MODERATOR KELLEY: Thank you.

14           So with that, I'll turn to my last  
15 question, and you're ready for this one, right,  
16 Mike.

17           So you've got the QER Task Force in  
18 front of you, you have an opportunity to give them  
19 one suggestion here. What is the role of the  
20 Federal Government? What do you want them to take  
21 away from today?

22           Mike.

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1 MR. TURNER: Yeah, first of all, I just  
2 want to make one comment on the global perspective  
3 of North Dakota. I handle onshore businesses for  
4 Hess in many, many areas. And over the last five  
5 years or so, even farther back, we've had a  
6 significant amount of global unrest in many, many  
7 countries around the world. The oil production  
8 has been shut in. And thank you for this man's  
9 service, we've been able to control that to some  
10 extent.

11 However, if you take a look at the North  
12 Dakota production over the last several years and  
13 overlay with the unrest oil, oil that's shut in  
14 due to civil unrest, North Dakota's made up all  
15 that production.

16 So I sit down with my kids and tell them  
17 what I do for a living, I talk about that. I talk  
18 about the fact that if it wasn't for North Dakota  
19 and all the oil production, we probably would have  
20 gas lines. We would probably go back to the times  
21 where I remember when I was kid.

22 So really proud of North Dakota and what

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1 it's done for the -- not just for North Dakota and  
2 the United States, but for the globe. So I wanted  
3 to throw that one in if it's okay.

4 So let's talk about what I would like to  
5 talk to the -- if the panel was sitting here.

6 I guess it gets back to a word that's  
7 been used quite often today, and I'll say it  
8 again, regulatory certainty. And it's really  
9 around two things. It's really around rail, and  
10 Matt Rose did a really good job of explaining  
11 that, so I won't get in detail there, but it's  
12 really coming to grips and getting to a permanent  
13 solution on what our rail designs and what the  
14 rail process is going to be going forward.

15 And the DOE's been working really hard  
16 on that with all the other -- the railroad  
17 commissions and all that and us to come up with a  
18 better solution.

19 The second one is what I mentioned  
20 earlier, that is around improving our overall  
21 integration of regulatory permitting and getting  
22 things done in a more efficient way. Not getting

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1 done haphazardly, but getting done more  
2 efficiently.

3           And I know I take a typical well that we  
4 drill in North Dakota, it takes many, many  
5 different companies, many, many integration points  
6 to get a well fixed, figured out where you're  
7 going to drill, where you drill it, all the way up  
8 to producing it.

9           And I think it's the same type of  
10 mentality we like to have the agencies work  
11 together on an integrated fashion and try to  
12 reduce some of the redundancies and duplications.  
13 I know it's very hard to do. I know it's a real  
14 ramp-up and we're putting a lot of pressure on  
15 everybody, but that would be something I think  
16 would really help us accelerate some of these  
17 things that we're doing and all these really great  
18 things that the panel here has said and the  
19 previous panel has mentioned.

20           That's it for me.

21           MODERATOR KELLEY: Thank you.

22           Brian.

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1 MR. KALK: Just a quick thought that  
2 Dave brought up, a good point about how North  
3 Dakota never used to be on the map. When I used  
4 to go to conventions, as the Public Service  
5 Commissioner from North Dakota, they'd always say,  
6 oh, North Dakota, isn't that where Mount  
7 Rushmore's at. And so, anyway, some of you didn't  
8 get that joke, but --

9 Anyway, I guess what I would say is if  
10 there's one takeaway I could say is that anything  
11 that we can do to streamline those jurisdictional  
12 pathways on pipelines, on the regulatory, we site  
13 a pipeline, but then once the crude starts to  
14 flow, it becomes then jurisdictional.

15 And so anything we can do to get that  
16 information back from how a pipeline is in  
17 operation to us as quickly as we can. If some  
18 cases in the state where there'd just been some  
19 rough edges, so that's what I would say. Not  
20 looking for more oversight on the pipeline, just a  
21 better information flow of what's going on when  
22 they're in operation.

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1 THE CLERK: Thank you.

2 Claire.

3 MR. VIGESAA: Okay. Kind of along the  
4 same theme, again, I've got to remind you that we  
5 have a lot to do and we're limited resources, so  
6 the certainty about regulations and streamlining  
7 the process is so important. Again, we're very  
8 conscious about environmental and, you know, those  
9 aspects and we're not saying to circumvent them,  
10 but to make the process predictable and certain  
11 because we have so little time to get our work  
12 done.

13 MODERATOR KELLEY: Thank you.

14 David.

15 MR. GOODIN: I think I touched on quite  
16 a few areas. One more I would just say is I would  
17 ask that the Department of Energy sincerely assert  
18 their influence in developing national energy  
19 policy that is sincere about an all-the-above  
20 energy choices, and the fact that while we -- I  
21 heard that earlier today and, in fact, rules that  
22 are proposed do take certain energy sources

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1 completely off the table because there's no  
2 technology, as we know it today, to capture carbon  
3 to the levels in which all energy sources are  
4 eligible.

5 So that would be my single outside of  
6 the ones I cited earlier. I appreciate you asking  
7 the question.

8 MODERATOR KELLEY: Thank you.

9 Once again, thank you all for joining us  
10 here and please join me in thanking this group.

11 (Applause.)

12 MODERATOR KELLEY: Now we are going to  
13 turn to what is quite possibly the most important  
14 part of today, which is to hear from you, the  
15 public. We do have a few folks who have  
16 registered to provide comments. If you haven't  
17 yet and you're interested, you're welcome to still  
18 do so.

19 So I'd like ask the QER Task Force to  
20 join me up here on stage and we'll get started  
21 here in a few moments.

22 (QER Task Force takes the stage.)

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1           MODERATOR KELLEY: Okay. So we have a  
2 list of folks who have signed up to provide their  
3 comments. I want to assure everybody, the DOE  
4 really does appreciate your comments and takes  
5 them very seriously. So thank you for those of  
6 you who have signed up.

7           I'm going to call your name in the order  
8 in which you signed up, and I ask as I called your  
9 name that you come up to one of the microphones  
10 and ask your question, make your comments. You  
11 have five -- no questions, sorry, just make your  
12 comment, and you have five minutes or less to make  
13 your comment in. And we'll go ahead and get  
14 started.

15           Today here joining me on stage are Greg  
16 Gershuny, Matt McGovern, and Kate Marks from the  
17 DOE Office of Energy Policy and Systems Analysis.

18           So our first commenter is Eric Norberg.  
19 Eric Norberg. You can just ask your question  
20 right from the microphone there -- the standing  
21 microphone.

22           MR. NORBERG: Thank you for devoting

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1 your time today for the critical task of improving  
2 the Nation's energy infrastructure as part of the  
3 Quadrennial Energy Review.

4 I'm Eric Norberg, and I'm president of  
5 ALLETE Clean Energy, and I'd like to tell you  
6 briefly about ALLETTE's Energy Corridor Project,  
7 which will pull a pipeline along (inaudible). We  
8 believe that this (inaudible) advances the QER  
9 objections. This project is specifically designed  
10 to respond to the need for additional energy  
11 transport infrastructure to and from the Bakken,  
12 and do so in a way that minimizes both the  
13 environmental footprint and socioeconomic impacts  
14 of the needed energy transport.

15 The Corridor Project envisions  
16 coordinated development of pipelines for the  
17 transport of both energy and energy-related  
18 products to and from the Bakken. When fully  
19 developed, the Energy Corridor Project would  
20 include pathways for transporting oil and gas,  
21 fresh and waste water, and in the future, carbon  
22 dioxide from power plants on the eastern end of

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1 the line to the oil field of the Bakken where CO2  
2 can be productively used for enhanced oil recovery  
3 instead of contributing to the global greenhouse  
4 gas emissions.

5           Unlike existing energy projects, all the  
6 pipelines that are part of the project will be  
7 sited on a single right-of-way, adjacent to a  
8 current transmission line. This has a significant  
9 advantage of reducing the environmental footprint  
10 that the separate routing of these paths would  
11 normally entail.

12           In addition, because the Corridor would  
13 be sited along single right-of-way, fewer property  
14 owners will be affected. Thus, the socioeconomic  
15 impacts of these infrastructure improvements can  
16 be minimized.

17           How does this relate to the goals of the  
18 Quadrennial Energy Review?

19           First, it addresses the identified needs  
20 for additional capacity to move gas and oil from  
21 the Bakken. It also provides new outlets for  
22 natural gas that is currently flared. Third, it

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1 provides part of the solution for the carbon  
2 capture, storage, and utilization technology that  
3 the Administration has identified as part of its  
4 Climate Action Plan, because it provides a way for  
5 that carbon to be transported from the power  
6 plants that produce it, to the oil fields where it  
7 can be productively used to increase oil capacity.

8           How can the Quadrennial Energy Review  
9 help this and other projects? First, we've  
10 appreciated the dialogue that we've had with the  
11 DOE and Congressional staff. It's helped us to  
12 understand your objectives as we hone our project.

13           The QER can help by championing projects  
14 like the Energy Corridor Projects by recommending  
15 that review of this and similar projects under the  
16 National Environmental Policy Act be conducted  
17 under a single lead agency such as DOE to reduce  
18 both the cost and complexity of bringing such a  
19 project to completion, and by encouraging  
20 investment in and development of projects like the  
21 ALLETTE Clean Energy Corridor.

22           Thank you for your time and attention.

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1 MODERATOR KELLEY: Thank you, sir.

2 Next, we have Marie Hoff. Marie Hoff.

3 MS. HOFF: My name is Marie Hoff. I'm a  
4 member of Dakota Resource Council and I'm also  
5 past chairperson of (inaudible) board of  
6 directors. And my remarks this afternoon  
7 represent not my own views, but also the written  
8 comments (inaudible) has submitted to the QER  
9 earlier, so we have a written report that we  
10 submitted (inaudible) we'll read that. I'm sorry  
11 that many of our state legislators and our  
12 representatives are not here to hear our remarks,  
13 so I'll direct -- Dakota Resource Council is a  
14 grassroots organization, and so we feel that we  
15 have kind of a (inaudible) understanding, a pretty  
16 deep understanding of what's happening with the  
17 people on the ground level in North Dakota who are  
18 experiencing much (inaudible) in the state  
19 (inaudible) accurate representative of many of the  
20 views (inaudible) people in the state.

21 We are going to ask people on the panel  
22 to protect the agricultural and natural resources

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1 in the state (inaudible). There's been a lot of  
2 talk today about developing the infrastructure,  
3 and \_ I couldn't help but think of the fact that  
4 our real infrastructure in North Dakota is our  
5 land, our soil, our air, our people, the whole --  
6 and our animals -- even domestic animals and wild  
7 animals, all of them are being very heavily  
8 impacted by the particular (inaudible).

9           The other thing I cannot help but think  
10 of (inaudible) best stories I remember from my  
11 grade school education was the legend of King  
12 Midas. And in the story of King Midas, he was  
13 given the opportunity to make a wish, and his wish  
14 was that everything that he would touch would turn  
15 to gold. I think you can see where I'm going with  
16 this story. And the very first thing that he  
17 mentioned (inaudible) after he was granted his  
18 wish was his (inaudible) daughter who instantly  
19 turn to gold when he tried to help her. And I  
20 think North Dakota that (inaudible) in this  
21 particular metaphor applies to our state. We're  
22 getting very rich, but I wonder (inaudible).

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1           We've got three key points that Dakota  
2 Resource Council would like to make. We question  
3 why the North Dakota Government has allowed the  
4 unplanned and extremely rushed development to the  
5 oil and gas industry of the state. I am  
6 personally asking this question, back in 2008, the  
7 Bureau of Land Management was (inaudible) issue  
8 pertaining to Federal land from the state.  
9 They're pretty clear at this point, about six  
10 years later, the social and the physical  
11 infrastructure for oil and gas flaring  
12 transportation (inaudible) and a system of  
13 fairness for rural landowners was hardly  
14 considered in the rush to extract a one-time  
15 harvest. Many of our neighbors talked about the  
16 frustrations that they have experienced with the  
17 permitting process, for example, (inaudible) in  
18 terms of rushing into (inaudible) people to sign  
19 leases as fast as possible (inaudible) cause for  
20 our (inaudible) members and other people  
21 (inaudible) because we interact with a wide range  
22 of people than just our own members.

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1           But as a result of this rush to develop  
2 this one-time harvest, we see that many people  
3 have suffered very greatly, we've seen people in  
4 tears, frankly (inaudible) possibly forever with  
5 some of the salt water (inaudible) spills that  
6 occurred and now when they get up in the morning  
7 and read in the paper, every single day  
8 (inaudible) accident somewhere in the oil fields.

9           And so we (inaudible) natural resources  
10 that are wasted even while (inaudible) natural gas  
11 too, which has been talked about a lot here.

12           A second key point that Dakota Resource  
13 Council would like to make is that there's  
14 (inaudible) officials who said that they were very  
15 devoted to the development of (inaudible) as  
16 Senator Heitkamp puts it -- all of the above  
17 natural energy resources in North Dakota, and yet,  
18 even North Dakota is number six in our country, I  
19 believe in our (inaudible) potential, we all  
20 really have developed 15 percent of our wind  
21 potential.

22           MODERATOR KELLEY: That's five minutes.

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1 MS. HOFF: It is five minutes. May I  
2 just quickly say my third point, which is the most  
3 important?

4 MODERATOR KELLEY: In 10 seconds, yes.

5 MS. HOFF: Okay. You'll appreciate this  
6 (inaudible). We still -- the Federal role in  
7 monitoring, regulating the oil and gas industry,  
8 the energy within our state is extremely necessary  
9 (inaudible).

10 Thank you for giving me a few extra  
11 seconds.

12 MODERATOR KELLEY: Thank you.

13 Next we have Linda Weiss. Linda Weiss.  
14 Ms. Weiss.

15 MS. WEISS: Hello. I am from  
16 (inaudible), North Dakota (inaudible) and read my  
17 statement. There's a lot to do to make sure North  
18 Dakota's going to produce energy and have a great  
19 quality of life at the same time. This past year  
20 has been full of (inaudible) train explosions,  
21 contamination (inaudible) resulting from state  
22 preference for drilling faster than infrastructure

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1 could be built. Because of the state's failure to  
2 meet its regulatory responsibilities, this is a  
3 time for a stronger Federal presence and  
4 leadership to make sure we move forward in a more  
5 responsible way.

6           There have been pitfalls of permitting  
7 oil activity with nonsufficient infrastructure,  
8 which causes the waste of resource. And I thought  
9 -- it's come to me that we could offset the waste  
10 of flaring, all that money going (inaudible) by  
11 building more turbines (inaudible). Unfortunately,  
12 state officials choose to drill as fast as  
13 possible rather than adequately prepare, slowing  
14 down the pace of new oil as necessary to allow us  
15 to catch up.

16           And one other thing is, to do more  
17 planning to make a smaller footprint on existing  
18 land uses, combined with a better engagement of  
19 landowners.

20           Thank you for your time.

21           MODERATOR KELLEY: Thank you.

22           Next we have Vicky Steiner. Ms.

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1 Steiner.

2 MS. STEINER: Thank you. I am executive  
3 director of Northcoast Association of Oil and Gas  
4 producing counties. (Inaudible) in western North  
5 Dakota. I'd like to thank you for a \$1.5 million  
6 Federal HUD grant received three years ago. We're  
7 just finishing up that grant. We were able to do  
8 local planning sessions with that money and we did  
9 a regional plan (inaudible) working with us on all  
10 issues. And as we went through our local plants,  
11 five top issues came through and that regional is  
12 available on visionwestentity.com. (inaudible)  
13 look at that further, but it's housing,  
14 transportation, emergency services, and childcare,  
15 and water.

16 And also, I don't know if you've heard  
17 about (inaudible) alliance, a consortium of states  
18 working from Texas to North Dakota and the central  
19 corridor. There are several oil and gas  
20 (inaudible) on the states that would be involved  
21 in a 4-lane interstate system. We've got 4-lane  
22 (inaudible) a lot of commerce moving from west

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1 Texas, the border in west Texas, up (inaudible)  
2 and then up to North Dakota (inaudible) into  
3 Canada. It's called (inaudible) alliance, and our  
4 dream is that we have a 4-lane interstate system  
5 (inaudible) corridor and it would, in fact,  
6 connect all these states (inaudible).

7           And also, the U.S. Army Corps of  
8 Engineers, I know we don't have the right audience  
9 for that, but we have 200,000 more people moving  
10 to western North Dakota. They are not updating  
11 the master plan to accommodate that. There's  
12 recreation problems. Our campgrounds are full and  
13 people need a place recreate around (inaudible)  
14 and also (inaudible) use the water in an  
15 industrial setting with the oil industry that's  
16 here and how North Dakota makes use of that water.

17           The other (inaudible) law enforcement is  
18 needed for more drug interdiction. We have  
19 increased FBI presence, delineation of human  
20 trafficking in our cities, additional federal  
21 funding for airports. Flood plain management  
22 training should be given. Right now, the Federal

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1 Government's requiring everybody from the  
2 (inaudible) to Baltimore, Maryland for the  
3 training. It would help us out if that person  
4 would come here, then we don't have to send  
5 resources (inaudible) send 20 to 30 people always  
6 to Baltimore. And then EMS flight helicopter,  
7 ambulance insurance is a current stumbling block  
8 to getting helicopter services (inaudible) an  
9 accident. (Inaudible) posting things in more  
10 detail.

11 MODERATOR KELLEY: Thank you.

12 And just a reminder to everyone, if you  
13 do have comments for the record -- written  
14 comments for the record, we will take those as  
15 well.

16 Next we have Adam Metzker. Jane Croen.

17 MS. CROEN: Jan.

18 MODERATOR KELLEY: Oh, Jan.

19 MS. CROEN: (Inaudible) so know you're  
20 going to hear the rest of the story, but in our  
21 county, and I'm going to speak to what we know in  
22 our area and we have Canadian (inaudible), so we

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1 have (inaudible) the Department of Transportation  
2 that we aren't able to control only and we can't  
3 control speeds, and it's dangerous, and we'd like  
4 to have something to help us with the railroad,  
5 where they place extra (inaudible) all those  
6 things. (Inaudible) west that Vicki just talked  
7 about, we are trying to get a central corridor  
8 through our state that's interrupted by  
9 (inaudible) that's -- we have no crossing. We  
10 have to go all the way around and it's quite a  
11 burden for the people. We are talking (inaudible)  
12 west, one of the ideas that's been presenting is  
13 (inaudible) and it's not so unique if you live  
14 along the water and other places, but for us, it's  
15 going to take some getting along with the --  
16 whoever controls the dams and the water and all  
17 that stuff. So there's (inaudible) Department of  
18 Interior, again (inaudible) transportation.

19 We also have trouble in our area  
20 (inaudible) is the applications for affordable  
21 housing doesn't work here. If the incomes of the  
22 folks that are applying puts them on the breach of

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1 financing for the housing and the expense of the  
2 housing that they built here. It's not over-  
3 built, it's just the cost of building in this kind  
4 of environment with the gas and oil play, tried to  
5 get the contractor to build us, costs too much,  
6 they can't get financing because they fail on  
7 their application that's a rule that they have to  
8 fill out and ask (inaudible).

9           But we're hearing that that's a stepping  
10 block and it's kind of unfortunate because we want  
11 to speak with the state. And if they could get a  
12 house , they would stay. They have children  
13 (inaudible).

14           So if you can help us with any kind of a  
15 modification or they might (inaudible), but  
16 everything costs so much more for them than that  
17 (inaudible), whatever it is, I think you could do  
18 better on that application if there's any way that  
19 it can happen.

20           And I thank you for your time and I  
21 appreciate people coming from afar to hear us  
22 (inaudible). Thank you.

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1           MODERATOR KELLEY: Thank you.

2           Next we have Laura McCarten. Laura  
3 McCarten?

4           Leroy Sollinger. Mr. Sollinger.

5           MR. SOLLINGER: Thank you. Nothing more  
6 else to say, so I won't be here five minutes  
7 because everyone else has said what I already said  
8 (inaudible) past situation when we have -- maybe I  
9 shouldn't be here (inaudible). So I'm concerned  
10 about social costs (inaudible) to me, everything  
11 is rush, rush, rush, get more and more energy,  
12 more this, more that. But there's no reference  
13 (inaudible) that addresses (inaudible) 80 years  
14 old, I work part-time (inaudible) served in the  
15 Army for 23 years, Desert Storm (inaudible) close  
16 to 80 years old (inaudible) Department of Energy  
17 and they're not (inaudible) who should pay  
18 (inaudible) 80 years old. Anyway (inaudible)  
19 senior citizens. I see in the paper (inaudible)  
20 paid 25 million. I'm sure (inaudible) isn't fair.  
21 Everybody here is glorifying (inaudible) just  
22 mentioned (inaudible) wonderful, wonderful

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1 (inaudible) but it's not so wonderful for  
2 (inaudible). I'd like to stress that. And I know  
3 I'm not (inaudible) security for country  
4 (inaudible), but there is also something  
5 (inaudible) old people, the citizens don't have  
6 (inaudible) and nothing is being done (inaudible).  
7 Thank you.

8 MODERATOR KELLEY: Thank you, sir.

9 I just want to go back to a few folks  
10 that weren't here earlier just to make sure we  
11 didn't miss anyone.

12 Adam Metzker and Laura McCarten?

13 Okay. Well, we have time for more  
14 comments if anyone -- anyone care to make a  
15 comment before we close things up? No?

16 Okay, well, with that, I do thank  
17 everyone for their comments. DOE does review all  
18 the comments provided during these sessions and  
19 those that are provided via email, and if you have  
20 written comments and provide those, those are  
21 reviewed as well. Takes every comment into  
22 consideration.

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1           So with that, I'd like to turn back to  
2 Matt McGovern who will close us out.

3           MR. McGOVERN: I just want to thank you  
4 for all coming today. And I especially want to  
5 thank people that made comments and we love to get  
6 input from the public. It's real important to  
7 this process. So we take comments on the  
8 internet, energy.gov/QER, you can submit a comment  
9 online.

10           Our next meetings coming up are -- we've  
11 got one on Monday, August 11th in Santa Fe on  
12 State, Local and Tribal Issues. August 21st in  
13 Cheyenne, Wyoming on Infrastructure Siting.  
14 September 8th in Newark, New Jersey on Electricity  
15 in the Eastern U.S., and may plan a couple more  
16 after that. And these will also be livestreamed  
17 on the website as well.

18           But with that, we'll wrap it up today.  
19 Thank you everyone for coming.

20           MODERATOR KELLEY: Thank you.

21           (Whereupon, the meeting was concluded  
22 at 5:03 p.m.)

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1 CERTIFICATE OF COURT REPORTER

2 I, Roger Meyers, the reporter before whom  
3 the foregoing hearing was taken, do hereby certify  
4 that the witness whose testimony appears in the  
5 foregoing deposition was duly sworn by me; that  
6 the testimony of said witness was recorded by me  
7 and thereafter reduced to typewriting under my  
8 direction; that said deposition is a true record  
9 of the testimony given by said witness; that I am  
10 neither counsel for, related to, nor employed by  
11 any of the parties to the action in which this  
12 deposition was taken; and, further, that I am not  
13 a relative or employee of any counsel or attorney  
14 employed by the parties hereto, nor financially or  
15 otherwise interested in the outcome of this  
16 action.

17

18

19 Roger Meyers

20

21

22

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1 CERTIFICATE OF TRANSCRIPTION

2

3 I, VALORI WEBER, hereby certify that I  
4 have typed the transcript of this proceeding using  
5 the Court Reporter's notes and recordings. The  
6 foregoing/attached transcript is a true, correct,  
7 and complete transcription of said proceeding.

8

9

10 \_\_\_\_\_  
11 August 26, 2014

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