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Quadrennial Energy Review 08-11-2014

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QUADRENNIAL ENERGY REVIEW

PUBLIC MEETING #10:

Infrastructure Constraints

Monday, August 11, 2014

New Mexico State Personnel Office Auditorium

2600 Cerrillos Road

Santa Fe, New Mexico

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

2 Peggy Welsh, Energetics, Inc.

3 The Honorable Sally Jewell, Secretary,
4 U.S. Department of Interior

5 The Honorable Martin Heinrich,
6 U.S. Senator, New Mexico

7 The Honorable Ernest Moniz, Secretary,
8 U.S. Department of Energy

9 Susan Ackerman, Oregon Public Utility Commission

10 Jeremy Turner, Executive Director,
11 New Mexico Renewable Energy Transmission Authority

12 Darrell Lacy, Department Director, Nye County,
13 Nevada

14 Warren Lasher, Director of System Planning,
15 Electric Reliability Council of Texas

16 David Martin, Cabinet Secretary, New Mexico
17 Department of Energy, Minerals and Natural
18 Resources

19 Ty Vicenti, President, Jicarilla Apache Nation

20 Gregg Fulfer, Chairman of the Commission,
21 Lea County, New Mexico

22 Jason Montoya, Bureau Chief of the Pipeline Safety
Bureau, New Mexico Public Regulation Commission

Daniel Fine, Associate Director,
New Mexico Center for Energy Policy,
New Mexico Institute of Mining and Technology

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- 1 A P P E A R A N C E S C o n t .
- 2 Randy Pacheco, Dean, School of Energy,
3 San Juan College
- 4 Steve Catanach, Light and Power Manager,
5 City of Ft. Collins, Colorado
- 6 Mike Mertz, Director, NERC Regulatory Compliance,
7 PNM Resources
- 8 Frank McRae, Director, Energy Resources
9 Department,
10 City of Mesa, Arizona
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1 P R O C E E D I N G S

2 MODERATOR WELSH: Good morning. Are the
3 microphones on? Can you all hear me?

4 Well, welcome to the Quadrennial Energy
5 Review meeting here in beautiful Santa Fe. It is
6 my distinct honor today to be the meeting
7 facilitator. My name is Peggy Welsh. I'm with
8 Energetics. Energetics is a contractor to the
9 Department of Energy, and we're honored to be
10 supporting the QER. And it's my honor to
11 facilitate the meeting today. And we're happy to
12 have all of you, both in the room and
13 livestreaming.

14 For those of you who want to speak
15 today, because this is a public meeting and we do
16 want to hear from everyone, please sign up at the
17 front desk. We would like anyone who is listening
18 via livestream to please submit their comments in
19 writing at QERcomments@hq.doe.gov.

20 I want to read a short statement here on
21 the purpose of this meeting.

22 "Pursuant to the Federal Advisory

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1 Committee Act, the purpose of today's meeting is
2 to ask for your individual input to your
3 organizations regarding infrastructure and provide
4 a form to exchange information. To that end it
5 would be most helpful to us for you to provide
6 these recommendations and information based on
7 your personal experience, your individual advice,
8 information or facts regarding the topic of
9 infrastructure challenges.

10 The object of today's meeting is not to
11 obtain any group position or consensus. Rather,
12 the Departments of Energy and Interior are seeking
13 as many recommendations as possible from all
14 individuals at this meeting."

15 Finally, for housekeeping, if the press
16 would please join us immediately following our
17 first panel for a media availability at 9:30 in
18 room 230 of this building, which is just down the
19 hall to the left.

20 Let me now introduce you to Melanie
21 Kenderdine who will introduce the panel. Ms.
22 Kenderdine is the Director of the Office of Energy

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1 Policy and Systems Analysis at the Department of
2 Energy, and she is Energy Counselor to Secretary
3 Moniz.

4 Melanie?

5 MS. KENDERDINE: Thank you, Peggy. Is
6 this on?

7 MODERATOR WELSH: Yes.

8 MS. KENDERDINE: Thank you. And thank
9 you all for coming.

10 The Energy Policy Systems Analysis
11 Office, which I run, actually is responsible for
12 putting together these outreach meetings. We are
13 doing 15 of these around the country. They are
14 both (inaudible) and regional in nature. So we
15 are out gathering information, and I have to say
16 that they have been excellent meetings for us as
17 we worked to put together the Quadrennial Energy
18 Review.

19 The QER was directed by the President.
20 He put out a Presidential Memorandum on January
21 9th of this year. It is a White House-led process
22 because there are so many agencies in the

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1 Government with equities in energy. Our office
2 and the Department of Energy receive analytical
3 work for the QER, and we are also managing the
4 interagency process pertaining to agencies that
5 are involved in the QER and we are responsible for
6 doing this outreach.

7 And the QER, Secretary Moniz will say a
8 lot more when he talks indicating an exercise
9 designed to develop policy recommendations that
10 are based on sound, rigorous analysis and data.
11 That's something that the Secretary is very
12 committed to doing, and so we are very, very
13 focused on that direction and hope to put out an
14 incredibly wellrounded document on January 31st of
15 2015. That's our deadline.

16 And so the Secretary will say a little
17 more about that when he speaks.

18 It is first my opportunity to introduce
19 to you Senator Martin Heinrich. I'm sure many of
20 you in the room know him. He's the Junior Senator
21 from New Mexico. He's on the energy and
22 Intelligence Committees in the Senate. I had an

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1 opportunity to testify before him not long ago on
2 the propane crisis that we had last winter, and I
3 can assure you he was a vigorous advocate for
4 (inaudible) consumers.

5 He's also the only engineer in the
6 Senate. You can read his bio. I think his bio is
7 available to all of you. I would note that he
8 came to MIT when he was running for office. And
9 we think MIT I was at MIT with Secretary Moniz at
10 that point in time. We think it's the premier
11 engineering school in the country.

12 He toured some of our energy labs and
13 got in discussions with some of our brilliant
14 engineers at MIT. One of them we called our
15 "gismologist," another engineer. And after
16 Senator Heinrich left the facility, the faculty
17 member asked me, referring to Senator Heinrich's
18 level of knowledge, if they were all like that in
19 the Senate. And I told him, no, they weren't,
20 that he was unusual in his knowledge and ability
21 to question engineers at MIT about their work.

22 Ladies and gentlemen, Senator Martin

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1 Heinrich, the only engineer in the U.S. Senate.

2 SENATOR HEINRICH: Thank you. I hope I
3 can live up to that introduction.

4 You know, obviously, first and foremost,
5 I'm going to welcome everybody and thank all of
6 you for being a part of this. New Mexico is at
7 the heart of energy, whether you're talking about
8 traditional or new, and so being a part of that
9 conversation is critical to our state's future.
10 And I want to thank both Secretaries for coming
11 out and being part of this.

12 I've had an opportunity to work very
13 closely with both Secretary Jewell and Secretary
14 Moniz. And I will tell you that their interest in
15 our state has been second to none. We've had a
16 great working relationship.

17 I was lucky enough to be with Secretary
18 Jewell on Friday for the kickoff for the
19 completion of land for a new national wildlife
20 refuge in New Mexico, and as you heard, I got
21 chance to sort of pick Secretary Moniz's brain
22 before he was Secretary and before I was a

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1 Senator.

2 I was in Massachusetts during the
3 campaign of 2012, and I had a fourhour block, and
4 I wanted to go by MIT's energy lab and see what
5 was going on. And long before Secretary Moniz was
6 Secretary Moniz, he was kind enough to show me
7 around. And some of the things that we spent that
8 time talking about are exactly the challenges that
9 we face today; issues like transmission and
10 storage, the conversation I had with what was
11 referred to as the "gismologist," is that right --

12 MS. KENDERDINE: Uhhuh.

13 SENATOR HEINRICH: -- was all about
14 storage and about finding elegant solutions to
15 managing energy supply and demand, particularly
16 with renewables.

17 New Mexico has always been an energy
18 state. And as we begin to face up to the very
19 real issues of climate change, it's also a place
20 where climate change is having a very real impact
21 on all of us.

22 And so I think those conversations will

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1 be inextricably linked as we move forward and as
2 we change our energy portfolio over time and the
3 infrastructure that will be necessary to manage a
4 portfolio that is changing.

5 We are going to be seeing more and more
6 projects that have renewables seamed together with
7 natural gas. We're going to have to be much more
8 serious and aggressive about energy storage.
9 We're proud to say that we have one of the only,
10 you know, gridtied, fullyintegrated storage
11 systems up and running in the State of New Mexico.
12 And that will be more and more the way of the
13 future as we try to manage and balance many
14 desperate generation sources together.

15 And I believe we're going to be at the
16 front edge of the changes to our transmission
17 system that will be necessary to manage a changing
18 energy portfolio as well.

19 Transmission is absolutely critical to
20 the State of New Mexico for us to be able to reach
21 the potential that we have, particularly, on the
22 renewable side of the equation. We have enormous

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1 resources that are largely untapped because our
2 transmission has been largely at full capacity in
3 the state or in areas where you couldn't take
4 advantage of that.

5 We have made enormous progress working
6 with the Department of the Interior on the
7 proposed SunZia Line, and New Mexico RETA has been
8 working diligently to further expand those
9 transmission opportunities. We won't see the
10 construction jobs or the potential billions of
11 dollars worth of investment in generation until we
12 can make sure that that generation can get to
13 market.

14 And so that piece of the infrastructure
15 future for the state is absolutely critical. All
16 these things matter deeply to the future of jobs
17 in the State of New Mexico. And I am very much
18 looking forward to the conversation.

19 I want to thank all of you for being a
20 part of it.

21 MS. KENDERDINE: Thank you, Senator.

22 Next we're going to hear from Secretary

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1 Sally Jewell. He's the 51st Secretary of the
2 Interior. She is a responsible, dedicated steward
3 of the nation's public lands, a champion in
4 fighting climate change and promoting
5 conservation. She's committed to strong nation-
6 to-nation relationships with the Indian country.

7 Yesterday, she and Secretary Moniz went
8 on a hike at Tent Rocks, and I understand that he
9 almost kept up with her.

10 Let's hear from Secretary Jewell.

11 SECRETARY JEWELL: I had a hard time
12 keeping up with him, but we had a lovely time
13 enjoying a Sunday in New Mexico, and what a
14 beautiful place you have.

15 I also had a really lovely visit with
16 the Governor of the Cochiti Pueblo, which is a
17 cooperative relationship with the BLM in that
18 particular national monument that was designated
19 early in 2001.

20 So for those of you who are New
21 Mexicans, what a lovely state you have, and I
22 can't tell you how nice it is to be here as

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1 opposed to where my other home is in Washington,
2 D.C., especially this time of year when it's hot
3 and humid there. It was just spectacular.

4 Melanie, thanks for the introduction.

5 And Secretary Moniz has been a true
6 partner in an effort to really think about our
7 energy future and to help educate me.

8 Like Senator Heinrich, I'm also an
9 engineer, and I started my career in the oil and
10 gas business. I used to recruit engineers for
11 Mobile Oil at the time, including New Mexico Tech.
12 I got very, very fond of that part of the state
13 and spent lots of -- lots of trips down here.

14 So I want to thank all of you for your
15 engagement. This work is not for the faint of
16 heart, and if you had an opportunity to read the
17 briefing for this particular meeting, the issues
18 that we face in permitting, especially across
19 interstate lines, different jurisdictions and so
20 on, is very, very difficult.

21 I am really proud to work for a
22 President that gets that and is really asking all

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1 of us to do the best job that we can to coordinate
2 better than we have ever coordinated before.

3 It's not easy. There's state
4 regulations and lots of different federal
5 regulations, but we're very committed to doing
6 that. And I like to say, as a business person
7 I've only been in public service now for 15 months
8 that we really need to do, when we think about
9 things like energy, in particular, is move from
10 sort of random acts to strategic focus. Each of
11 us has a role to play, but how do we knit those
12 things together so that we can cooperate and have
13 an energy future that is more sensible, less
14 complicated, less bureaucratic than it's been.

15 And certainly, in reading the briefing
16 for this, we have a long way to go to make that
17 happen.

18 So Department of Interior, what's our
19 role? One of the things that Melanie mentioned is
20 upholding trust and treaty obligations to our
21 Alaska natives and American Indian tribes. And
22 it's great to see so many leaders from tribal

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1 communities, particularly the Pueblos of New
2 Mexico represented here today.

3 In many cases we have tremendous
4 potential for traditional oil and gas,
5 conventional energy development, as well as
6 renewable energy development on tribal lands. And
7 that is something that Secretary Moniz and I are
8 very committed to moving forward.

9 The White House Council on Native
10 American Affairs, which I chair, has a
11 subcommittee, an energy subgroup, which we both
12 chair, Secretary Moniz and his team at Energy has
13 been quarterbacking that process to say what can
14 we do to really understand the issues across
15 tribal lands and bring solutions that make the
16 most sense.

17 And they are different. Here in New
18 Mexico, where the sun shines over 300 days a year,
19 you're going to have tremendous opportunities for
20 solar. If you're in Alaska, in a rural village,
21 you are dependent generally on a diesel generator,
22 and you may be looking at lowhead hydro or other

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1 things. We need to work with tribes more
2 effectively to bring some of the resources that
3 the Department of Energy has in terms of the
4 knowledge base and Interior has in terms of not
5 only our knowledge, but our permitting capacity to
6 help facilitate that.

7 So the Bureau of Land Management, and
8 I'd like to just call out Jesse Juen. He's out
9 there. Where are you, Jesse? I just saw you a
10 minute ago. There he is, in the back. He usually
11 sticks up above the crowd. Jesse is the New
12 Mexico State Director for the BLM. Very, very
13 committed public servant, running a great group of
14 people here.

15 And I was just talking to Dave Martin
16 who you'll hear from later, Secretary of Energy
17 hear for the State. I got his title slightly
18 wrong, but the Energy, Minerals, and Natural
19 Resources. Thank you.

20 But we were talking about the challenges
21 we have as public servants meeting the demand for
22 permits to drill and inspection and enforcement,

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1 and one of the challenges that Jesse has is the
2 lack of ability to charge adequate fees to
3 industry to cover our costs. So we're all
4 competing for petroleum engineers with industry.
5 That's tough.

6 Both Secretary Martin and I are started
7 our careers as petroleum engineers. He probably
8 stayed at it a little longer than I did. But we
9 were talking a little bit earlier in the
10 Governor's office about the opportunities that you
11 have in New Mexico and across the country,
12 frankly, to tap into domestically provided oil and
13 gas resources. And we need to make sure that
14 we're resourcing the BLM appropriately so it
15 cannot only facilitate that, but also do
16 inspections and enforcement so the environment is
17 well taken care of.

18 I think it's 700 million mineral right
19 acres that the BLM oversees, the lands underneath
20 the BLM I mean, the mineral rights under the BLM
21 lands as well as the U.S. Forest Service lands, so
22 it's a big, big portfolio.

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1 I will say I am very proud of my BLM
2 colleagues. Since 2008 they've approved more than
3 27,000 applications for permits to drill, and
4 they've reduced the average processing time per
5 permits to the lowest it's been in eight years.
6 So while the Governor was frustrated that it was
7 too slow, a lot of improvements have been made,
8 and that's been the hard work and creativity and
9 energy on the part of our colleagues at the BLM.

10 I would also say that my predecessor,
11 Ken Salazar, with the full support of President
12 Obama, has been was very focused on standing up
13 renewable energy projects. And I'm continuing
14 that effort as part of the President's all of the
15 above energy strategy.

16 So we had zero solar energy projects
17 permitted on public lands when President Obama
18 took office. We now have 29 utility scale solar
19 projects, 11 wind, and 12 geothermal projects on
20 public lands. When completed, they would generate
21 20,000 jobs, 14,000 megawatts of power, and that
22 would provide enough power for nearly 4.8 million

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1 homes. So we've been busy.

2 But one of the challenges, of course, is
3 something that Senator Heinrich referenced, and
4 that is you've got the capacity for solar and
5 wind, but you've got to get it to where the load
6 is. We worked very hard on SunZia with the
7 Department of Defense, the BLM, other
8 stakeholders, and are very happy that we've come
9 up a solution there that looks like it will enable
10 that project to go forward to get that wonderful
11 wind energy capacity that exists in New Mexico to
12 the load centers.

13 And I want to particularly thank Senator
14 Heinrich for his really hard work with us and with
15 DOD in making sure that we understood each other's
16 issues to get that done.

17 We also have something the President
18 sped up which is the Rapid Response Team for
19 Transmission or RRTT which enabled us to work with
20 states more effectively to run a parallel process
21 on our permitting as opposed to a sequential
22 process, which it was before. And that, we

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1 believe, will help expedite some of these efforts.

2 So as we work together, it's really
3 important to say, to recognize, that our country
4 depends on energy. Our country depends on
5 transmissions, depends on pipelines. It also
6 depends on a clean and healthy environment.

7 When my friend, Bill Ruckelshaus, was
8 the first ever head of the EPA, back in the Nixon
9 Administration, they recognized that it was not
10 okay for the Cayuga River to be on fire. It was
11 not okay for Love Canal. We needed to have an
12 environment where we could have industrial
13 development and energy development, but do it in a
14 way that was compatible with the environment. And
15 I'm also committed to doing that as well.

16 We do have a cost to our development.
17 We have an opportunity now with a lot of
18 technologies to look at our landscapes more
19 holistically, to understand the areas with high
20 development potential, and the areas that are
21 sacred sites, and the areas that are high
22 conservation values for whatever reason, and to

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1 deconflict those areas so the conservation and
2 sacred sites remain undeveloped. The development
3 sites have higher priority for development, and we
4 can plan ahead for transmission and pipelines to
5 be a lot smarter about how we address our public
6 lands management.

7 Colleagues in the BLM, the U.S.
8 Geological Survey, other parts of the federal
9 family are working together to do just that. And
10 we've got some great examples -- National Leasing
11 Plans in Utah, National Petroleum Reserve in
12 Alaska, the Desert Renewable Energy Conservation
13 Plan in California -- that are doing just that.

14 So I know that working together we can
15 have a bright energy future for this country, one
16 that's less dependent on foreign fuels and one
17 that exercises the opportunities that we have for
18 renewables.

19 So with that, thank you very much, and I
20 look forward to hearing my colleague, Dr. Moniz,
21 and then perhaps taking a few questions. Thank
22 you.

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1 MS. KENDERDINE: Do you want me to
2 introduce you, or do you want to just talk? We're
3 short on time. I would actually like to introduce
4 you.

5 Secretary Moniz is the 13th Energy
6 Secretary. He has deep roots in New Mexico. He
7 worked here as a young scientist -- well, a
8 younger scientist, at Los Alamos. He was the last

9 DR. MONIZ: You got a raise.

10 MS. KENDERDINE: Thank you.

11 He was the last single Undersecretary of
12 DOE. There are now three. Where we worked
13 together there in the Clinton Administration, I
14 had the good fortune to work with Secretary Moniz
15 when he was a director of the MIT Energy
16 Initiative, and I'm now on my third tour of duty
17 with Secretary Moniz, who had I not worked for
18 Bill Richardson as well when he was secretary, I
19 would say Secretary Moniz is the best energy
20 secretary I've ever worked for. It would be
21 imprudent to say which one is better. But he is
22 fabulous Energy Secretary, the absolute right

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1 person to be Secretary of Energy at this point in
2 time.

3 DR. MONIZ: Usually, the pitches for
4 salary increases are made privately, but that
5 works, all right. Thank you, Melanie.

6 Actually, just to elaborate very
7 slightly. In fact, my association here with Los
8 Alamos and Santa Fe and the region goes back, I'm
9 loathe to say, 42 years. So on the other hand,
10 that actually means that I really understand also
11 the importance of communities and tribes since
12 this is a region where that is absolutely
13 essential to what we in the Department of Energy
14 are doing in this state, with Los Alamos, with
15 Sandia, with WIPP, where we will be later on
16 today, et cetera.

17 And the fact that I might add this
18 morning, we had a very good meeting with the
19 regional coalition of LANL communities so that we
20 can all, hopefully, row together, and support what
21 is something very important to me, for our entire
22 complex, which is that the more we have vibrant

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1 economies around our complex, the more it is for
2 us to accomplish our missions and to get the human
3 capital that we need, et cetera. So I can assure
4 you, as a local issue for sure, we are on the same
5 page.

6 Senator Heinrich, the anecdote told
7 earlier by Melanie was absolutely true. Our guys
8 were juiced by the interaction with Senator
9 Heinrich around deep technology discussions. I do
10 want to say with Senator Heinrich, and with the
11 entire delegation, Senator Udall, with Congressmen
12 from Lujan to Pearce, we have a very, very
13 constructive relationship. They work hard for the
14 state and for the country.

15 And also, already last now almost a year
16 ago, the opportunity of meeting with the
17 Governor's Office and the Governor and including
18 Secretary Martin, the opportunity to again discuss
19 all of our shared interests.

20 I'm sitting here between what was
21 declared in Washington as two of the five most
22 powerful energy women in Washington. Therefore, I

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1 would say two of the six most powerful people, and
2 we can argue who the sixth is, Senator?

3 But it's been a great team, and the
4 visit yesterday to Tent Rocks, which Secretary
5 Jewell recommended, it was a jewel identifying a
6 jewel in our national monument system and being
7 there in Cochiti Country, it was really
8 extraordinary. I'm surprised, frankly, that being
9 here 42 years I had never been there.

10 As we go forward, let me say a few broad
11 words about Quadrennial Energy Review. It is a
12 very ambitious attempt to weave together the many
13 varied interests that come together in energy. We
14 have the Department of Energy, the Department of
15 Interior, the Department of Defense, the
16 Department of State, the Department of Commerce,
17 the Department of Agriculture, you go on and on
18 and on, all have critical roles and interests in
19 energy.

20 So the way this works is that the White
21 House uses the convening power, if you like, to
22 bring together the agencies, and the Department of

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1 Energy serves as an Executive Secretary with
2 Melanie's Office of Energy Policy Systems
3 Analysis being kind of a point to that spear, to
4 provide kind of the analytical capacity. That's
5 the first point.

6 The second point is in this first year,
7 we're taking off a bite, not a small bite but a
8 smaller bite than the entire picture, of focusing
9 on energy infrastructure, that the President
10 committed to that when he put forward the QER in
11 his Climate Action Plan last June, and the focus
12 on infrastructure certainly, if anything, in the
13 intervening year, has proved to be critical,
14 whether it's been natural gas problems in the
15 Northeast during the polar vortex or propane
16 issues across many parts of the country during the
17 polar vortex.

18 Oil by rail, problems in getting enough
19 transmission infrastructure to move renewables, an
20 issue certainly in this part of the country.
21 Also, implications of water stress on our energy
22 infrastructure. You can go on and on and on, and

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1 the issues have become very, very clear in their
2 importance. That's the second point.

3 Third point is right from the beginning
4 we put forward the statement, not the conjecture,
5 but the statement, that to succeed we have to have
6 regional focus. The problems and the solutions
7 are not the same in every part of the country. So
8 what we are doing, this is the 10th in our
9 regional meetings, from North Dakota to Santa Fe,
10 from the Northeast to the Southwest, and the Gulf
11 Region and other parts of the country, where there
12 are identifiable opportunities for us to get input
13 in these various issues.

14 So today we will be focusing on the
15 state, local, and tribal issues that we need to
16 understand to successfully put forward a
17 comprehensive strategy. And I do want to actually
18 introduce Tracey LeBeau. She's the Director of
19 our Office of Indian Energy at DOE. And so you
20 can all go to her later on for some solutions.

21 But also I should say that Secretary
22 Jewell really is the point person around

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1 administrationwide addressing of tribal issues and
2 I'm very pleased to co-chair the Energy Group in
3 that attempt.

4 So, again, here in this state, it has
5 already been alluded to, but you know, just on the
6 issues of electricity transmission, we know we
7 have issues more to the southern part of the
8 state, the Department of Defense, we have issues
9 with tribal communities and utility issues being
10 raised. So we need your input. We'd like it
11 today. We'd like it tomorrow. We'd like it over
12 the next months. So today is not the only time
13 for that input.

14 And I'd like to now stop to leave time
15 for some questions. Thank you.

16 MODERATOR WELSH: Thank you. Before we
17 take questions, I wanted to recognize that
18 Congressman Lujan's staff is in the room. Could
19 you stand up?

20 Are there any other Congressional staff
21 in the room, and if so, could you introduce
22 yourself?

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1 Well, this meeting is not just about the
2 Federal Government. We are honored today and will
3 be hearing from all levels of government, tribal
4 leaders, cities, and state.

5 But our VIP panel has graciously
6 accepted to take a couple questions. We're
7 running a little behind, so please don't be shy.
8 If you have a question, there's mics in the back.

9 MR. CURTIS: Excuse me. My name is
10 Michael Curtis with the Arizona Municipal Power
11 Users Association. And with respect to the
12 transition period, is the off ramp from our
13 current coalbased resource, is that timeframe open
14 to some consideration for perhaps a longer period
15 of time and I say that on behalf of in our Desert
16 Southwest of Arizona we're concerned about the
17 rural and minority and retired, the transition to
18 a higher cost for climate change reasons getting
19 society needs we think needs some additional time,
20 is that a matter under consideration?

21 DR. MONIZ: Well, first of all, thank
22 you for the question. This refers -- if I may

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1 just clarify for others -- this refers to the
2 current rulemaking put forward by the
3 Environmental Protection Agency, actually two
4 distinct rulemakings with regard to both new
5 plants and existing plants.

6 First of all, like I said, this is, with
7 regard to existing plants, this is I think,
8 really, the key question being addressed as an act
9 of rulemaking, all I can say is that the -- within
10 the EPA, that comments are being actively sought,
11 and that will be for the Environmental Protection
12 Agency to decide.

13 But let me make a couple of other
14 comments if I may.

15 First of all, under the Clean Air Act,
16 the Environmental Protection Agency has put
17 forward a proposed rule in terms of existing power
18 plants. With a complex formula, which -- but I
19 think creative one -- that leads to statebystate
20 goals for carbon intensity. However, to achieve
21 those goals, the states are given maximum
22 flexibility as to how that's achieved.

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1 And for example, the EPA stated that
2 they see energy efficiency is probably going to be
3 one of the very important components of compliance
4 plans put forward by states.

5 Secondly, that another aspect of the
6 flexibility is not only within any given state,
7 but the flexibility of forming regional
8 partnerships with a complementarity of the
9 resource base in different states can come
10 together to get an even more effective, efficient,
11 and economic compliance plan.

12 Third, I would just add that in their
13 stated projection now, of course, until the state
14 compliance plans come forward, it will not be
15 entirely calculable, but they have with their
16 emphasis on efficiency as likely an important
17 component of the response, they actually expect
18 that bills can go down because of less electricity
19 being required.

20 So I think right now it's in play, and
21 the important point is this is a place for giving
22 inputs to the EPA.

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1 SECRETARY JEWELL: Can I just add one
2 quick thing which is to recognize that President
3 Ben Shelly from Navajo Nation, who I think is
4 hiding behind the podium, so I can't see him.

5 SECRETARY MONIZ: Oh, there he is.

6 SECRETARY JEWELL: But jackinthebox
7 there Navajo Generating Station, one of the most
8 significant power plants we have in the United
9 States, is threatened because of this, and I just
10 want to acknowledge we're working closely with
11 that facility. We're very involved.

12 The Bureau of Reclamation is actually an
13 owner in the facility, and I think that to just
14 echo what Secretary Moniz said, comments are
15 really helpful. That will help the EPA determine
16 timeframes and so on. So I think that making
17 those comments known is really important, but I
18 did want to call out to President Shelly. I
19 appreciate you being here and your work on this.

20 SENATOR HEINRICH: All I would add is
21 that in my meetings with Administrator McCarthy,
22 and they have been many on this issue, and with

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1 many of my colleagues, in some of those meetings,
2 the focus on making sure that this is achievable
3 and flexible and responsive to the local, state,
4 and regional situation, is not lost on the EPA.

5 And that is something we will continue
6 to press because at the end of the day, these
7 things have to work. If they don't work, then it
8 doesn't matter where your goal is if you can't get
9 there. And we want to make sure that this is
10 successful and the first step in really addressing
11 the carbon pollution problem that has been so well
12 documented.

13 DR. MONIZ: Peggy, I'd like to add one
14 more comment, I'm sorry, but, in fact, picking up
15 what Senator Heinrich just said.

16 A document I would call to your
17 attention, published a couple months ago by the
18 Administration with a huge input of scientists was
19 the Third Climate Assessment Report. And in
20 particular, it had a very, very strong focus on
21 the regional impacts that we are already seeing
22 from global warming. You know them very well in

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1 this part of the world, part of the country.

2 But the point I wanted to make is we
3 also understand that an international solution is
4 ultimately, of course, required to address the
5 climate change litigation needs. We believe we
6 need to show leadership in the United States. And
7 I would say since the proposed Power Plant Rule
8 has come out, and I've been in a number of
9 countries, Ethiopia to China, and the leaders in
10 those countries have specifically raised the
11 leadership that has been displayed in proposing
12 this rule.

13 So it's really part also of a bigger
14 strategy well, like I said, we've got to do it
15 right.

16 MODERATOR WELSH: Do you have time for
17 one more question? One more. And we're running
18 behind, so, Matt, do you want to give the mic?

19 PRESIDENT SHELLY: Thank you. I want to
20 read something then I'll ask a question.

21 It says here, "What is the source of
22 federal power over Indians." (Inaudible). "The

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1 United States Constitution provides the legal
2 remedy rationale for implementing that power.
3 Article 1, Section 8, Clause 3 (the Commerce
4 Clause) provides that Congress shall have the
5 power to regulate commerce with foreign nations
6 and states and with Indian Tribes."

7 My question to Senator Heinrich is I'm
8 hoping see that maybe by turning that around, I
9 know the United States Constitution says it is the
10 document for the United States Government as a
11 whole, I don't know how much can help us with the
12 energy policy that's going through the Senate and
13 also the House side.

14 I know Congressman -- House
15 Representative Young, Don Young, pushing it. I
16 know from the Senate side, and this is pertaining
17 to the energy policy. I know it's gone through a
18 couple of committees already and it's on the
19 Senate side is Barrasso, he's one that's kind of
20 pushing that on the Senate side. And I'm asking
21 the Senator that maybe that's another way of
22 helping the Indian tribes if they get the policy

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1 to go forward and I just don't know where it's at.

2 That may be a question for the Senator here.

3 Thank you.

4 SENATOR HEINRICH: In recent months, we
5 have seen a change in leadership in the Senate
6 Energy and Natural Resources Committee. It has
7 been a challenge since that time to get consensus
8 on hearings and mark-ups. So I don't believe it
9 has received a mark-up in the Senate.

10 However, Senator Barrasso is somebody
11 I've worked with on a number of issues, including
12 the permitting issue that we've worked so closely
13 with BLM on and Senator Udall. I do think that
14 there is a growing recognition that tribes are
15 part of the energy solution, not only for their
16 own communities, but for the country as a whole.

17 And that for us to be able to address
18 the daunting challenges that we face today, and
19 the changing conditions, that we cannot do that
20 without meeting tribes as sovereign equals, to be
21 able to address everything from production of
22 energy to also transmission, especially in places

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1 like the West where to get energy from one place
2 to another oftentimes requires jurisdictions that
3 range from tribal to defense to private to state
4 to Department of Interior and Agriculture.

5 So we look forward to continuing to work
6 with you on that, and hopefully we will see a I'm
7 hopeful that after the election we'll be able to
8 move forward on a number of bills that are
9 currently bottled up in the Energy and Natural
10 Resources Committee.

11 MODERATOR WELSH: Okay. Well, I
12 apologize to those who have questions, but we have
13 simply run out of time. These are important
14 people with busy schedules. They will, however,
15 stop for the press opportunities, so for members
16 of the press, if you'll join them in Room 230.

17 But before you do that, let's please
18 give this stellar panel a round of applause.

19 (Applause.)

20 We will now set up for Panel number 1. So those
21 of you watching live streaming, just give us a
22 moment.

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1 (Panel 1 takes the stage.)

2 MODERATOR WELSH: Okay. Good morning.

3 Welcome back to the Quadrennial Energy Review

4 meeting here in beautiful Santa Fe.

5 It's my distinct honor to introduce our
6 first panel of speakers. As I said, we have the
7 honor today of having state leadership, tribal
8 executives, and regional expertise. And it's my
9 honor today to introduce this panel. Each speaker
10 is going to talk about the electricity
11 transmission, storage, and distribution
12 jurisdictional issues and policy priorities and
13 challenges.

14 I'd first like to introduce the
15 Honorable Susan Ackerman with the Oregon Public
16 Utility Commission. She is also the second the
17 first vice president of -- am I right -- the
18 second vice president of the National Association
19 of Regulatory Utility Commissioners, which means
20 she'll be president of that organization in two
21 years.

22 Next to her we have Darrell Lacy oh, no,

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1 excuse me -- Jeremy Turner, Executive Director of
2 the New Mexico Renewable Energy Transmission
3 Authority.

4 And then Mr. Lacy, Department Director
5 of Nye County in Nevada.

6 And last, but not least, Warren Lasher,
7 Director of System Planning for the Electric
8 Reliability Council of Texas.

9 Councilman Gabriel has been delayed, and
10 we're hoping that he'll join us after we get
11 started.

12 With that, Commissioner Ackerman, the
13 floor is yours. And remember, 5minute summaries
14 and then we'll get into some discussion.

15 COMMISSIONER ACKERMAN: Is that little
16 light going to be off over there when we go too
17 long?

18 MODERATOR WELSH: Yes, it is.

19 COMMISSIONER ACKERMAN: Excellent.
20 That's very helpful.

21 Good morning, everybody. I'm very happy
22 to be here. I guess I'm probably integrating you

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1 all because I'm not actually from the Desert
2 Southwest, but from the West -- Pacific Northwest.

3 I want to make a few observations, but
4 honestly, they're not observations that weren't
5 already noticed in the memorandum that the
6 Department of Energy sent out to all the people
7 that were coming here.

8 The first one, of course, was that the
9 industry is an increasingly fragmented industry.
10 I think part of that is due to restructuring that
11 happened in the 1990's, but varied from region to
12 region. And it varied from region to region
13 because each region is different. There are
14 natural differences there: geography, resource
15 base, culture, economic goals, you name it. And
16 those differences will persist.

17 But also, of course, we are now dealing
18 with emerging technologies which are giving
19 consumers more choices. And there are new and
20 untraditional players breaking into our industry.
21 The Googles, the Teslas, everything is happening
22 out there. So I think we are going to stay

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1 fragmented for a very long time. That's point
2 number one.

3 Point number two is the changing power
4 supply mix, and we've already talked about that as
5 well. This is a long developing trend. We're not
6 going to get away from our desire to have a less
7 carbon intensive industry, although this will vary
8 from state to state or region to region, but we're
9 going to continue to see more wind and solar, more
10 distributed generation, more storage, more natural
11 gas and less coal. So I don't see a letup to
12 these policies to encourage low carbon power
13 system.

14 But, you know, many of easy these newer
15 resources are intermittent, and they require new
16 things of the grid. In particular, they require
17 technologies, technologies support, planning, and
18 probably traditional generation to back them up.

19 So with those observations, I really
20 wanted to say two things in particular to -- in
21 terms of recommendations -- to the Department of
22 Energy.

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1 One is that we are probably going to
2 under invest in grid innovation. These are the
3 kinds of innovative tools, technologies,
4 applications, analytics, and reforms that could
5 enhance the efficiency and reliability of the
6 grid. And we're going to do that, I think,
7 because many of these technologies have the
8 qualities of the public good. And this is what
9 economic regulators say when you're saying, you
10 know, this really brings great value to society.
11 But the individual industry actors cannot claim
12 the value from the technology that they would
13 like. So the investment doesn't happen.

14 An example, for example, would be
15 synchrophasors. Synchrophasors greatly expand the
16 visibility of what's going on in the grid. But
17 it's the kind of thing that the person who invests
18 or the entity that invests in it can't bring the
19 benefits home to pay for the costs.

20 So that's one thing that might not
21 happen without the Department of Energy.

22 Also what I see is the interface between

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1 transmission and distribution is a growing and
2 potential problem. In our region, of course, this
3 is particularly true in California, increasing
4 levels of distributed DG, distributed generation
5 on the system, especially intermittent DG, can
6 cause reliability issues that will locate first on
7 the distribution system but then roll up to the
8 grid.

9 So the line between the bulk system and
10 the distribution system is blurring. We'll need
11 to improve operator visibility control at
12 distribution system level.

13 We'll need twoway information and
14 communication. And finally, at some point we
15 might need to rationalize FERC and state
16 regulatory jurisdictions. I say that with some
17 caution because I'm aware that there are states
18 that are very frustrated with how FERC has managed
19 some of the, especially the wholesale, markets out
20 there.

21 And I'm not suggesting a wholesale
22 rewrite of the Federal Power Act, but there might

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1 be some things that we can borrow from
2 telecommunications such as the joint state and
3 federal boards where there is some organized
4 coordination going under that.

5 So I'm going to conclude briefly by just
6 saying I think the Department of Energy is on the
7 right track. I've seen that memo, and we've had
8 experience with some of the things the Department
9 of Energy has done for us up in the Pacific
10 Northwest which involved, actually, a lot of
11 Federal funding. And I know probably they hate to
12 hear this because they get it all the time, and I
13 know the Federal Government is short on cash as
14 well.

15 But many things have gone well in the
16 West for us recently, and it's because there was
17 Federal funding support for us. And so that's
18 just something I would actually like to give the
19 Department of Energy credit for.

20 MODERATOR WELSH: Thank you.

21 Mr. Turner?

22 MR. TURNER: Thank you for allowing us

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1 to be here this morning. I think this is a great
2 process and a great start. I'm actually going to
3 take a little different approach and let you know
4 what the New Mexico is doing through some of our
5 establishment and how I think we can tie it in to
6 kind of what's happening at the Federal level.

7 RETA is quasigovernmental entity. We're
8 one of only eight in the country. Unfortunately,
9 there's only three of us up and running and doing
10 anything. In addition to that, there's only two
11 of us that have ever issued bonds. That's New
12 Mexico and Wyoming.

13 But it was all done in an attempt to
14 actually try and move transmission forward, to
15 start seeing construction happen. Unfortunately,
16 I think there was a lack of understanding of just
17 how difficult of a process that is.

18 As part of RETA's mission we can plan
19 and finance projects. I think our planning
20 function, we're starting to take that step
21 forward. The review that's happening right now,
22 we appreciate DOE putting this forward because

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1 these are the exact type of things that, in my
2 opinion, we need to see happening in order to
3 address our aging infrastructure.

4 Without proper planning, we tend to
5 bandaid our issues. We go back, we rebuild
6 projects two or three times because we didn't do
7 it right the first time.

8 A few years ago RETA commissioned Los
9 Alamos National Labs. There was a little talk
10 about them this morning. We commissioned LANL to
11 do some work for us and take a look at our
12 existing infrastructure, what we have already,
13 what we can do with it, and what minimal build-out
14 we can add to our existing infrastructure to
15 actually export about 5200, 5500 megawatts of
16 power from New Mexico.

17 I think the more of those plans we can
18 put and encourage from the Federal level, I think
19 it will help quite a bit. We need to start fixing
20 our long-range issues instead of bandaiding them.

21 What Texas did with CREZ, now I'm sure
22 you'll hear about in just a moment, I think is the

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1 exact right step. They put a plan in place, they
2 moved forward with it without a lot of blow-back,
3 I think from the regulatory and the environmental
4 side, and they actually pushed forward and got it
5 done.

6 RETA has started taking some steps
7 because, I think, there's a lack of environment
8 for an incentive for the utilities to go out and
9 build these. And what it's left the door open for
10 is a bunch of merchant-based transmission
11 developers like RETA and Clean Line Energy and
12 some of the other folks. SunZia, you heard a
13 little bit of talk about them this morning. And
14 really, I think, the merchants are stepping in
15 because the utilities, and I don't blame them at
16 all, without a proper cost recovery mechanism,
17 they're not going to venture into that area, nor
18 do I think they should.

19 But from the merchant standpoint,
20 because we have a little different investors and a
21 little different backing, the time horizon's a
22 little different. And we have an ability to stay

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1 in, but not for a long time, because we're not
2 covered by the rate pairs.

3 So from RETA's standpoint, we did get
4 into a firstofitskind public-private partnership.
5 We think that's the right way to move forward,
6 create more of these public-private partnerships
7 and actually start laying the framework and the
8 groundwork to actually get something built.

9 We're currently working on about a
10 200mile long project. We work with three tribal
11 communities. We work with state lands, Federal
12 lands not so much. We're trying to avoid the
13 Federal lands as much as possible. And we're also
14 working with the private communities.

15 I think proper acknowledgment of the
16 tribal communities, that they are their land, and
17 that we are only allowed to go and ask to be on
18 their lands for infrastructure I think is an
19 important part. And I think taking a different
20 approach with the tribal communities will allow us
21 to start actually moving forward a little bit and
22 see some of these projects built.

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1 In the West, though, it's becoming
2 increasingly important to acknowledge that and to
3 work collaboratively with the tribal communities.

4 As part of the project that we're
5 working on and developing, we did go FERC. That's
6 one of areas I would actually like to see
7 addressed a little bit. I think there needs to be
8 a little closer coordination because, at the FERC
9 level, my own personal opinion is they say they
10 want more transmission, but if they don't have the
11 rules in place to allow it to happen.

12 There is room left open for speculators
13 that tend to clog up the system, and in our
14 specific case, we went and asked to accelerate the
15 project, and FERC denied that, and to date, not a
16 single of the speculators have built an inch of
17 transmission. And so I think that's one of the
18 areas that should be addressed.

19 The Rapid Response Team was already
20 touched on.

21 And I think the other thing that we
22 would like the DOE to take a look at is the

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1 financial incentives for transmission. If we can
2 do that, make the projects more economical and put
3 greater timelines in place, where people know
4 exactly what they are investing in and for how
5 long, then I think we can start to address our
6 infrastructure.

7 Once again, we appreciate the
8 opportunity to be here and we look forward to
9 questions. Thank you.

10 MODERATOR WELSH: Thank you.

11 Mr. Lacy? And please bring the mic up
12 close.

13 MR. LACY: Thank you for my opportunity
14 to be here today. I really appreciate our chance
15 to get the local perspectives into this process.

16 Nye County, Nevada, where I'm from, is
17 the third largest county in the U.S., but with 98
18 percent of our land under Federal control, it
19 probably has the largest impact on the Federal
20 jurisdiction and Federal regulations.

21 It's a very hot spot for renewable
22 energy, and as we started looking into this, and

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1 we had a huge land rush about five years ago, it's
2 really is threelegged stool from a county
3 perspective. Transmission is one of those legs.
4 But also having access to the land for building
5 the projects and building the transmission, as
6 well as having a power purchase agreement and
7 other sort of reliable financing means over a long
8 period of time are what's required to really make
9 this work.

10 So I think really the purpose here is to
11 make the renewable energy increase so that we can
12 help reduce the fossil fuel energy. But by having
13 too many cooks in the kitchen, it's sometimes very
14 difficult.

15 As I said, it's kind of a threelegged
16 stool, and the opportunities for access to the
17 land, the opportunities for private access to
18 financing and power purchase agreements all relate
19 down to this transmission issue, which is that in
20 a large rural area -- let me show you a picture of
21 Nye County here. It's 18,000 square miles. We
22 have 98 percent under Federal control, but it's

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1 multiple different agencies and jurisdictions.

2 So have Department of Energy, we have
3 Department of Defense, having large areas there in
4 the middle of the county. We have Bureau of Land
5 Management as the largest controller of the land,
6 but we also have the National Park Service, USDA
7 Forest Service, and a couple of others in there in
8 addition to some tribal entities.

9 So with all of the different
10 jurisdictions there it makes it very difficult to
11 install this. We start looking at where is the
12 current transmission lines. Of course, they were
13 there where population is. In a large, sparsely
14 populated, rural county like Nye County, we didn't
15 have any to start with.

16 So about five years ago when the DOE 368
17 or WestWide Energy Corridor Study was being done,
18 we were very excited that this was going to lead to
19 some transmission, and we actually have a couple
20 of corridors going right through the parts of the
21 county that really have some opportunities for
22 transmission and renewable energy generation.

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1 So how can a local government help?

2 Well, as we started looking into this, we realized
3 we had very little private land. We did what we
4 can with the private land in regards to planning
5 and zoning and other types of encouragements or
6 economic development, but we realized that many of
7 the developers showing up had very little
8 expertise on Federal lands.

9 So we tried to help them to understand
10 one, where is the best places to build, and also
11 how to work through the Federal bureaucracy, I
12 guess, is the best way to put it.

13 So what we have here behind us is a map
14 of the county. On the southwest side of it is a
15 long border with California. Many of the
16 renewable energy developers that showed up in our
17 county were looking for access to the California
18 market. And that's one of those jurisdictional
19 issues that's very difficult to deal with, and I
20 was very frustrated with the recent EPA 111(d)
21 carbon issues, and that they're done on a
22 statebystate basis, not a regional basis, which I

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1 think is one of the things that has to be looked
2 at to really make transmission grids work. You
3 can't do that on a statebystate basis, unless
4 you're Texas.

5 So on the map here behind us, the red
6 areas are what we had as the prime renewable
7 energy solar areas in the county. And when you
8 look at this part of the issue was that you had to
9 have flat land to build renewable energy, and you
10 had to have access to transmission. And you had
11 to have land that you could have access to. So
12 you'll see a big area there in the middle doesn't
13 have anything in it. Well, that's Department of
14 Energy and Department of Defense land that is
15 essentially off limits to any commercial
16 development.

17 So on the southwest area there you see a
18 long blue line. Well, that's a proposed
19 transmission corridor. It's not an existing
20 corridor. Only the very southern tip of it has
21 any actual transmission in it. And as you get
22 into the different agencies and the lack of an

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1 overall energy policy, we actually have some solar
2 energy zones in the area. The problem is they
3 weren't placed where there's any actually
4 transmission. So you're not going to see a whole
5 lot of power built there, would be my expectation.

6 And transmission is very expensive. So
7 it has to to get some built you either have to
8 have an overarching transmission program like
9 Jeremy was just discussing or like Texas has done
10 with their CREZ process or you have to have large
11 projects that can pay for it. And those have been
12 very slow coming and difficult to get.

13 And one of the biggest problems is the
14 long timeframes. And one of the things you see in
15 the energy business is time is money, and we have
16 seen the little, the one small transmission line
17 we've been able to get, with access to in the
18 county, took use 11 years to get. It's now open
19 and available. We just don't have any land
20 available next to it to put projects in.

21 And the concept that doesn't seem to get
22 a whole lot of discussion is that a transmission

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1 line going through your jurisdiction doesn't do
2 you any good if you don't have any access to it.
3 And that's what we like to call the freeways with
4 no onramps.

5 To get into a transmission -- a high
6 voltage transmission line, you have to have a very
7 expensive substation. And the financing for this
8 transmission line is typically done by a merchant
9 or an entity that's trying to carry power from A
10 to B, and they don't need any onramps along the
11 way to help it.

12 So what can the county do? Well, one is
13 we can help educate the developers as to what the
14 issues are. But really what we need is to have a
15 coordinated energy project and program from the
16 Federal Government if it's going to work in our
17 area.

18 Thank you.

19 MODERATOR WELSH: Mr. Lasher?

20 MR. LASHER: Yes, can I borrow the thank
21 you.

22 Well, it's very much a pleasure to be

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1 here today to talk to you. And I must say as a
2 planner, it's doubly a pleasure because I get a
3 chance to talk about a plan put together that
4 actually seems to have worked. So that's a rare
5 enough thing. You need to take pleasures in life
6 where they come.

7 I would like to briefly step through
8 just a few of these slides. I submitted these
9 slides into the record. I would like to highlight
10 a few of them if I can get it to do I have to
11 point this at something or? Now we're working. I
12 do have to point it at something.

13 Okay. Hopefully, it will stop there. I
14 apologize for the inconvenience here.

15 But Texas was faced with a conundrum
16 that's facing a lot of different regions. Wind, a
17 lot of wind potential, but no transmission to the
18 areas with a lot of wind. Our Texas legislature
19 stepped in in 2005 and passed a Senate bill that
20 would effectively require the Public Utility
21 Commission to designate certain zones as
22 competitive renewable energy zones and then order

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1 the construction of transmission lines to serve
2 those zones and get that power to the load
3 centers.

4 That stepped off about two years of
5 intense regulatory rulemaking and technical
6 analyses, and then it stepped off about three
7 years of rightofway permitting and again we're
8 having come on. One more. Come on. Sorry about
9 this. I'm going to have to have the technology
10 cede the time back to me.

11 Okay, here we go. So I wanted to
12 highlight this. The real hard work, the real
13 heroes of the process, I think, were the folks
14 down at the Public Utility Commission staff and
15 the commissioners who worked their way through the
16 rightofway permitting for 72 new circuits, 36 CCN
17 hearings, I believe.

18 And you can see the load of work that
19 they went through. The red line here is the
20 actually permitting dockets that they were working
21 through, and then the construction that took
22 place. So we had permitting through 2011,

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1 construction that took place through 2013, and the
2 end result was I wish I could figure out if there
3 was a specific ah, the end result was this. By
4 the end of 2013 almost 3600 miles of new right of
5 way, 345 mostly 335 Kv transmission, to bring
6 renewable energy to the load centers in eastern
7 Texas.

8 I would like to also show the results of
9 that development. You can see in about 2008, 2009
10 timeframe, the development of wind energy in Texas
11 had outgrown the transmission capacity. Where we
12 are today, the light blue teal lines there show
13 the wind projects that we expect in the next three
14 years. That's based on projects that have signed
15 contracts for transmission level service. So we
16 will be going from approximately 11,000 megawatts
17 of wind to 20,000 megawatts of wind, based
18 primarily on the benefits, the access provided by
19 the CREZ circuits.

20 I'd like to highlight just three things
21 that I believe are partially responsible for the
22 completion of this project, the success of this

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1 project. You've heard a couple people speak about
2 it here. Regional issues, region. I think the
3 size of Texas, the size of the ERCOT region, makes
4 it very conducive to these sorts of projects.
5 It's big enough that there are a range of
6 resources. But it's small enough that the
7 affected parties can get together and discuss and
8 work through the issues.

9 I also think it's very important; in
10 Texas, we have worked through both cost allocation
11 issues, plus we have worked through benefits
12 issues. So it's very important that parties
13 involved in the process see the benefits from the
14 process.

15 And I think the other thing about the
16 CREZ process that made it such a success is the
17 fact that there was a large vision, a very large
18 project, but small steps. We took small steps
19 along the way. We maintained the capability to
20 change course if difficulties arose or if there
21 were new ideas that could be incorporated into the
22 process.

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1 So with that, I'd be very happy to take
2 questions. Thank you.

3 MODERATOR WELSH: Thank you. So what
4 I've heard all of you talk about is the need for
5 planning, coordination, identification of
6 financial tools and instruments. So let's get
7 into that a little bit, if we could.

8 You all have talked about the success of
9 various projects and what's needed. I'd like to
10 know where, in your opinion, further coordination
11 is needed, how can we accomplish that, and is
12 there a Federal role for enhanced coordination.

13 Who would like to tackle that?
14 Commissioner Ackerman?

15 COMISSIONER ACKERMAN: Thank you, Peggy,
16 for calling me out.

17 MODERATOR WELSH: It's only because I
18 love you.

19 COMISSIONER ACKERMAN: Oh, thank you,
20 Peggy. I love you too.

21 You know, Oregon is still a vertically
22 integrated state. And we are in a vertically

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1 integrated region. We don't have an organized
2 wholesale market. We do still bilateral
3 transactions, but that doesn't mean there hasn't
4 been good coordinating and good planning. It has
5 happened.

6 At the state level, I actually think
7 there's no substitute for integrated resource
8 planning, in terms of finding a power supply that
9 is least cost, also least risk, lowest carbon,
10 environmentally responsible, and reliable, all
11 those things. At the wholesale level, though, and
12 I will say this: that the Federal Government did
13 step in and help up with coordinated planning.

14 I don't know whether you all are aware
15 of this, but you mentioned in the memo that there
16 was a Western Governors' Association planning that
17 happened the last few years, and that planning
18 looked at grid reliability, grid planning,
19 integrating wind and solar, promoting efficient
20 use of existing lines, and advancing promising
21 technologies. And it really, really worked, and
22 all of that was done with federal funds. The

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1 planning would not have happened without the
2 ability to pay for all of us to be in the same
3 room at the same time. And I'm sure the Federal
4 Government gets awfully tired of hearing this, but
5 it was true.

6 So I think that the coordination part
7 has to happen as needed on a kind of a
8 regionbyregion basis. I don't know that you can
9 actually say, in any blanket fashion, where the
10 coordination has to happen because every region is
11 so different.

12 MODERATOR WELSH: Thank you.

13 MR. TURNER: You know, I think on the
14 Rapid Response Team for Transmission, that's a
15 perfect example. I appreciate the effort to put
16 that in place. I think it's working, although I
17 think it still needs a little bit more time and a
18 little bit more effort put into it.

19 Part of the thing -- and at least this
20 is my own personal opinion based on the project in
21 New Mexico -- is it required an outside party in
22 the form of Senator Heinrich to actually step in,

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1 ask for a study, in order to move that project
2 forward. I don't think that should have happened.
3 I think there needs to be a little closer
4 coordination between the departments on what their
5 priorities are, what they want versus what they
6 need, which are two very different things, and an
7 ability to work between what's needed to actually
8 advance some of these projects and move them
9 forward in a little more timely fashion.

10 I think, from an investor's standpoint,
11 the more definitive timeline we can provide an
12 investor, the more likely it is that they will
13 stay with the project for the long term. When
14 projects drag on, instead of 7 years to 13 or 14,
15 investors' time horizons have changed and they're
16 starting to back out of projects. And that's
17 doing nothing to address our infrastructure.

18 MODERATOR WELSH: Good point.

19 Mr. Lacy?

20 MR. LACY: I just want to mention that
21 from a perspective like in Nevada, we kind of
22 sleep next to the elephant. California's electric

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1 demand and their demand for renewable energy is so
2 vast compared to what our local usage is that we
3 have no options but to incorporate their plans and
4 growth into our transmission issues. I'm sure
5 Oregon, Arizona, and probably even New Mexico,
6 have concerns there also because it's such a large
7 demand that when things go wrong there, it can
8 have a regionwide impact.

9 And as I mentioned a little bit earlier
10 is the 111(d), or the carbon issues there, have
11 thrown enough uncertainty into it right now that
12 I'm hearing developers say we can't make any
13 decisions now until we know what this 111(d) is
14 going to look like.

15 So a lot of projects that were currently
16 kind of working their way through the process
17 slowly, have now, at least, been put on pause
18 while they try to understand what the impact of
19 that. Because it's such a vast impact to our
20 future energy generation next in the country that
21 we really have to get that resolved before anybody
22 else can figure out what's going to happen.

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1 MODERATOR WELSH: Thank you.

2 Mr. Lasher?

3 MR. LASHER: Yes. Texas is a little bit
4 different situation. We've solved some of our
5 transmission issues. I'd like to refocus back on
6 something that Commissioner Ackerman said.

7 There is a significant need still for
8 science and research in ability to model and
9 analyze the implications of some of the changes
10 that are being made on the grid, specifically,
11 increasing the amounts of renewable generation
12 power electronics generation. So we need more
13 capability in terms of ensuring the reliability of
14 the grid, given the increasing rate of change of
15 technologies on the grid.

16 And I think that's an area where the
17 Federal Government can really push things forward
18 working with the national labs and working with
19 other researchers.

20 COMMISSIONER ACKERMAN: Can I jump in
21 with more comments?

22 MODERATOR WELSH: Please, please. This

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1 is supposed to be an interactive meeting.

2 COMMISSIONER ACKERMAN: You know, I'm
3 hearing of all the difficulty getting transmission
4 sited, and frankly, I do not doubt that. But I
5 will tell you also that sometimes these projects
6 fail for a reason. A lot of it is just economics.
7 And maybe it's, you know, the problem with finding
8 financing, but with that money that we were given
9 as a region, the Northwest, by the Federal
10 Government to do planning of our own system, there
11 was a polling of some of the big players and
12 generation transmission utilities, loads,
13 everything, about what they needed in the way of
14 big transmission investment. And that's when the
15 answer came back really not much.

16 There's so much of a movement in our
17 region towards distributed generation, the lines
18 that are needed to get across multiple states to,
19 say, South Dakota where the wind resource is
20 really good, actually wouldn't pay for itself.
21 You're looking at a resource that has a low
22 capacity value. In other words and then you're

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1 doubling the cost because you have a very long
2 expected transmission line, also with low capacity
3 factors and values.

4 And sometimes there's a reason why these
5 things fail. And I think in our region that was
6 one of them.

7 MODERATOR WELSH: Let me pick up on
8 that.

9 Because we have all levels of government
10 here today, one of the things that you brought up
11 is need and that sort of thing. What do you can
12 you give your opinion on whether or not existing
13 authorities for siting, permitting, planning,
14 allow the U.S. to achieve its longterm goals, or
15 are those decisions always short term, as needed,
16 and what can we do to enhance existing authorities
17 or change them as needed.

18 So the question's, basically, on
19 existing authorities, and do we need change in the
20 various levels of authority we have for siting,
21 permitting, and other?

22 COMMISSIONER ACKERMAN: Well, let me

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1 jump in.

2 This is a personal opinion. I used to
3 be a natural gas person years ago, and it was an
4 awful lot easier to get natural gas pipelines
5 sited than it is to get transmission lines sited.
6 I think part of that is just that the pipeline is
7 underground, you don't have to look at it every
8 day. You kind of forget it's there.

9 But I also think there were some
10 jurisdictional differences between the siting
11 responsibilities of the Federal Government for
12 long line facilities like gas pipelines and the
13 transmission facilities.

14 I say this with caution, because the
15 fact of the matter is we are a very diverse
16 country with different interests, and I don't know
17 that you if the Federal Government wants to take
18 on trying to take siting responsibility away from
19 states and localities, it might be something else
20 necessary, but it's also something that's going to
21 be very difficult.

22 These things just are difficult, and I'm

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1 not quite sure that there is a easy answer to them
2 other than the hard work of getting together and
3 talking about it and working out the bugs. But
4 that's my opinion.

5 MODERATOR WELSH: Anyone else want to?

6 MR. TURNER: I think the Commissioner is
7 exactly right. And I stated during my talk that I
8 think this review is a perfect opportunity to kind
9 of start those longer range discussions, those
10 longer range planning and try and head them off.

11 I think as we do a little bit more
12 proper planning and work through these long-range
13 issues, we can mitigate things right up front.
14 There's no need to get six years down the road and
15 still be in the middle of one of these projects
16 and in a fight when we have an opportunity to just
17 kind of head them off right up front.

18 I think your point is well taken,
19 Commissioner, that some of these projects are
20 meant to fail. I think those that aren't though,
21 that if we can work a little closer, identify the
22 issues up front, resolve them, as opposed to

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1 picking them back up every couple months.
2 Identify the issue, resolve them, move on. And I
3 think that coordination and like you said, this
4 review, I think is a perfect opportunity to start
5 that.

6 MODERATOR WELSH: Thank you.

7 MR. LACY: Just one quick comment in
8 what area is that in an area like Nye County or
9 Nevada where it's mostly Federal lands, I think
10 FERC could take a lead on something like that or
11 like one agency, maybe DOE or somebody else does
12 need to take the lead when you leave the meet the
13 issues and stress through the multiple different
14 agencies taking leads on different parts of a
15 puzzle.

16 You can only build a power line once you
17 get all of the land access from A to B. It just
18 doesn't work to leave gaps in a transmission
19 process, so one of the issues we have seen in some
20 of the projects in our area is that different
21 Federal agencies have different priorities. And
22 they don't all have the transmission as a top

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1 priority right now.

2 MODERATOR WELSH: Good to know.

3 Mr. Lasher?

4 MR. LASHER: Yeah, I'd just like to
5 highlight that there were several points in the
6 CREZ process as we were working our way through
7 some of the issues where momentum almost seemed to
8 stall, where it really felt like the outcome was
9 more problematic than it seems today.

10 And I think if there had been just a
11 couple barriers, institutional, et cetera, types
12 of barriers, that required a delay, that required
13 six months here or required another hearing here
14 or there, you know, I think we could have lost a
15 significant part of the overall plan, which would
16 have significantly diminished the capability of
17 the plan as a whole.

18 So I would say, you know, highlighting
19 some of these other comments, to the extent that
20 there are known issues today, known problems, they
21 have to be dealt with. And I would say maybe a
22 plan that acknowledges those issues and either

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1 find some way around them at the start or, you
2 know, at least acknowledges their existence and
3 incorporates that into the initial plan, might be
4 more likely to succeed, so...

5 MODERATOR WELSH: Okay. The CREZ
6 project was one success that all regions are
7 taking a look at. One of the things we wanted to
8 dig a little deeper in was how you financed it,
9 and the cost allocation question. And I'm sure
10 all of you have comments on how we finance.
11 First, we have to plan for these projects. Then
12 we have to coordinate on siting and permitting.
13 But how do we finance them? What lesson can we
14 learn from the CREZ projects and from your other
15 experiences on the panel?

16 MR. LASHER: Well, Commissioner Ackerman
17 was talking about regulatory construct for
18 planning. And Texas is a fully deregulated
19 market. The generators can build anywhere they
20 want. And I don't disagree that you give
21 something up when you go to that kind of a
22 construct. But I think you gain a lot as well.

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1 However, for that to work, it has to be
2 in an environment in which generators are, to some
3 extent, welcome. And they have a plan, an area in
4 which they can potentially succeed with the
5 generation project.

6 In ERCOT from a transmission development
7 perspective, all transmission is paid for by load
8 on a postage stamp, a cost ratio share based on
9 their usage and peak hours. That is a settled
10 matter, so if you're a generator, you have to pay
11 for your generation project, you have to pay for
12 your step up autotransformer, and then all of the
13 rest of the costs to connect you to the grid
14 adequately are paid for by load.

15 And so in essence, we have a welcome mat
16 out for generation projects. That -- you know,
17 what that does is it means that we get a lot of
18 new technologies, we get a lot of competition from
19 the latest and greatest technologies. But, you
20 know, that means that the loads are paying for all
21 of the generation for all of the transmissions for
22 these generation projects. So there's a give and

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1 take there.

2 MODERATOR WELSH: Others want to talk
3 about how they finance their projects.

4 MR. TURNER: You know, I think, and I
5 talked just briefly about it. RETA, a few years
6 ago we were working with Senator Bingaman to
7 actually try and make the state authorities
8 eligible for private activity bonds, essentially
9 making transmission tax exempt.

10 I think that's one of the things that we
11 need to continue to take a look at. I know
12 there's some legislation right now that's been
13 trying to work its way through looking at the real
14 estate investment trust. I think the REIT
15 Structure, Hunt Transmission did it in Texas.
16 That's the only time it's ever been done. They
17 did it very successfully. I think we need to
18 expand REIT's.

19 And I also think we need to open up
20 master limited partnerships, which has been used
21 for decades on natural gas pipelines. If we open
22 those up for transmission, it provides one more

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1 tool that brings the cost down, and it really
2 starts to make renewables competitive with
3 conventional generation, and it brings that cost
4 down where we can handle those longhaul
5 transmission projects and actually start
6 interconnecting these different areas in the
7 fashion that needs to happen.

8 COMMISSIONER ACKERMAN: Can I just jump
9 in again? I feel like I'm, what do they call it,
10 the fly at the garden party.

11 But, you know, there is -- the question
12 is cost to whom. I guess I am a little bit
13 concerned about the notion that consumers and load
14 pay for everything if there isn't some other kind
15 of economic test or whether it's a good decision
16 or not.

17 You can encourage generation to come on
18 board, but maybe it's generation that shouldn't be
19 there because it isn't cost effective. And I
20 think this is still that tension between the
21 states that deregulated and the states that did
22 not deregulate. I look at the East Coast, and I

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1 see the problems they are having with capacity
2 markets on the East Coast

3 MODERATOR WELSH: Speak into the mic
4 please.

5 COMMISSIONER ACKERMAN: Oh, I'm sorry.
6 Capacity markets are having on the East Coast, I
7 find myself thinking, really, is that where we
8 want to go? There's still got to be a role for
9 reliable power to consumers at affordable prices,
10 regardless of everything else we're doing here.
11 And I know that the long-term trend is prices are
12 going up, but consumers still count. This is not
13 all about making it work for generators.

14 MR. LASHER: You have a point.

15 MR. LACY: Yep. And just a quick
16 comment is that if you want private financing of
17 any sort, whether it's REIT's or it's merchant
18 construction of lines, the generation has to come
19 on at the same time as the transmission. And when
20 you get into the long lead times that we've been
21 seeing on Federal land issues out there, you know,
22 we're seeing 10, 11 years, is not an uncommon

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1 timeframe to get something permitted and built in
2 the West. I'm not sure how long it took you to
3 get power lines constructed and built, but that's
4 a big difference.

5 MR. LASHER: We went from legislative
6 about in 2005 to

7 MODERATOR WELSH: Warren, right in the
8 mic.

9 MR. LASHER: I'm sorry.
10 We went from a legislative act in 2005
11 to the full plan together by the end of 2013. So
12 very accelerated.

13 And I don't disagree that, you know,
14 there needs to be cost review. Certainly, in
15 Texas we have review of transmission projects, so
16 transmission projects are not built unless there's
17 a process where the transmission owner, ERCOT, and
18 the Public Utility Commission, all review those
19 projects.

20 From a generation project though, we
21 have an energy only market. So generation owners
22 only get paid if they sell their energy to the

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1 market competitively. So if you are foolish
2 enough to invest in a project that is not cost
3 competitive, your investors take the risk. And
4 that's the balance that we get in ERCOT. And I am
5 not going to say that there aren't other
6 organizational structures that provide other
7 benefits to consumers. But I think in Texas it's
8 a workable solution that does provide benefits to
9 consumers.

10 MODERATOR WELSH: So we've learned that
11 it's not easy. But I've heard an awful lot of
12 lessons learned from each of you today.

13 And I want to give you a chance to take
14 those, if you have the chance to be talking to
15 Secretary Moniz and the other members of the QER
16 Task Force, what one specific recommendation would
17 you tell this Task Force that's needed on this
18 issue of infrastructure challenges and
19 jurisdiction?

20 And why don't we start in the middle.
21 Mr. Turner?

22 MR. TURNER: I was hoping to get some

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1 good thoughts from the others before answering
2 that.

3 You know, I think the one thing that I
4 would like to see happen is, like you said, I
5 think a little closer coordination between the
6 departments. Identify their priorities before
7 going out with these various task force or these
8 various priorities or projects that have been
9 identified as a priority.

10 Head the issues off up front. Work
11 between the departments, figure out where we're
12 going to have a problem and a headache, deal with
13 it right up front before we get out in public and
14 have to go into a fairly lengthy, sometimes
15 uncomfortable, debate on these public projects
16 that are across public lands. Deal with them
17 behind the scenes and get the departments on board
18 to where when we hit go on a project, we can see
19 it completed in a couple years as opposed to a
20 decade.

21 MODERATOR WELSH: Very good
22 recommendation.

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1 Mr. Lacy?

2 MR. LACY: I agree. Get them all at the
3 table, all the various Federal agencies and, you
4 know, if it requires putting one agency in the
5 lead, whether it's FERC, DOE or whatever, an
6 agency with the ability to push something through
7 the other agencies. It has to be done in a more
8 timely fashion and with some sort of certainty as
9 to when these projects are going to be finished so
10 that the other pieces of it, the generation, the
11 interconnects, can all be done at the same time so
12 that they come together. And, you know, endless
13 delays just kill your financing. It kills all
14 other kinds of stuff, interactions.

15 MODERATOR WELSH: Thank you.

16 Warren?

17 MR. LASHER: Yeah, and so I really don't
18 discount the difficulties that other regions are
19 seeing. But obviously we have a little bit of a
20 different perspective.

21 I would like to reiterate, not to
22 discount or not to neglect the really, really,

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1 really hard science of detail, analytical
2 analysis, first of the actual stability and
3 reliability implications, but also in terms of the
4 cost to benefit. Just being able to model out 10,
5 15, 20 years into the future. How much is it
6 actually going to cost to reliably run the system
7 with these new technologies, and what are we going
8 to need in order to maintain reliability? These
9 are issues that it is not easy to analyze right
10 now.

11 And then the last thing I would say is,
12 and I know I'm not saying anything new, but invest
13 in people. Invest in people that can tackle these
14 challenges going forward and have the technical
15 capability and the economics capability and the,
16 you know, interpersonal skills to address these
17 issues. I think that's going to be critical.

18 MODERATOR WELSH: I think we're going to
19 talk a little bit about workforce in the third
20 panel.

21 Commissioner Ackerman?

22 COMISSIONER ACKERMAN: You know, I'm

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1 going to follow along with Warren's comment.

2 DOE is already doing a lot that is very,
3 very good, and I want you to keep doing that. You
4 are driving innovation. You're finding the gaps
5 where particular analysis needs to be done, or
6 developing analytical tools that needs to be done,
7 and you're filling those gaps. And I think that's
8 great, and you need to keep doing that.

9 If there's a problem of revenue for
10 that, and I know everything is a revenue problem,
11 especially with the Federal Government right now,
12 but also for the states. Perhaps to fund these
13 R&D and developmental work, maybe there needs to
14 be something like a nonbypass system charge or
15 something like that that's funds basic R&D in
16 areas where it would otherwise be a public good
17 that wouldn't get funded because the owners of the
18 project can't bring home the bacon with the
19 benefits, so...

20 MODERATOR WELSH: Let me give you all,
21 as we come to conclusion of this panel, the
22 opportunity for some final thoughts. I limited

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1 your presentations to five minutes, but let me
2 assure those in the audience, and those watching
3 by livestream, that all the presentations and your
4 submitted written comments will be available on
5 the DOE website very soon, within 24 hours or so.
6 And that address for people to note is
7 www.energy.gov/QER.

8 So let me give you a few minutes to
9 provide the QER task force with some final
10 thoughts if you have any.

11 COMMISSIONER ACKERMAN: You know, I think
12 I just gave my final thoughts.

13 MODERATOR WELSH: Very good.

14 MR. TURNER: You know, I think one of
15 the things we would like to see as this review is
16 put in place or these longer range plans, just
17 like what happened with the CREZ projects, at
18 least in my own opinion, is for those plans to be
19 put in place, something for us to work towards,
20 and when the change in administration or staff
21 happens, that we don't lose all that work.

22 We would like to see these plans adopted

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1 in some formal fashion, whether that's through
2 Congress or something so that we don't lose all
3 that momentum and work and effort that was put in
4 already.

5 MODERATOR WELSH: Very good point.
6 Thank you.

7 MR. LACY: Well, I just want to, you
8 know, we're talking about transmission, but as
9 Warren mentioned, as we get more and more
10 renewable energy on the grid, the issues of
11 reliability and backup generation and dealing with
12 the intermittent loads that come on from solar and
13 wind is going to be more and more critical for us
14 to deal with, which means the regionwide
15 transmission grid and energy storage are more
16 critical than ever. And we need to really put
17 some thought into that, and it's going to be very
18 important for us to move forward.

19 MODERATOR WELSH: Any final thoughts
20 from ERCOT?

21 MR. LASHER: Strangely enough, I really
22 don't have anything else to say.

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1 MODERATOR WELSH: Well, we've explored a
2 lot of topics today, and I know I learned a lot.
3 I hope the audience did. Let's give this panel a
4 great round of applause.

5 (Applause.)

6 MODERATOR WELSH: We'll set up for Panel
7 Number Two. Thank you all.

8 (Panel 2 takes the stage.)

9 MODERATOR WELSH: Thank you. Can we
10 have your attention again, please.

11 We want to thank you all who are in the
12 room for attending and listening ever so greatly.
13 And for those of you who are watching
14 livestreaming, we want to welcome you as well.

15 We talked a lot about the electricity
16 infrastructure on the last panel. We're now going
17 to turn to the oil and gas industry
18 infrastructure. And I have the honor of
19 introducing our distinguished panelists.

20 First we have David Martin, Cabinet
21 Secretary of the New Mexico Department of Energy,
22 Minerals and Natural Resources.

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1 Ty Vicenti, President of the Jicarilla
2 Apache Nation.

3 Gregg Fulfer, Chairman of the
4 Commission, Lea County, New Mexico.

5 Jason Montoya, Bureau Chief of the
6 Pipeline Safety Bureau, New Mexico Public
7 Regulation Commission.

8 And Daniel Fine, Associate Director of
9 the New Mexico Center for Energy Policy at New
10 Mexico Institute of Mining and Technology.

11 Thank you all very much.

12 Mr. Martin, the floor is yours.

13 MR. MARTIN: Thank you, Peggy.

14 MODERATOR WELSH: I want to remind you
15 that you have a timing clock over here. Five
16 minutes, and keep your mouth close to the mic so
17 that everyone can hear. Thank you.

18 MR. MARTIN: Thank you.

19 Well, this is the reason we have
20 infrastructure concerns in oil and gas. You can
21 see the dramatic increase in monthly oil
22 production, and there's no indication that that's

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1 going the level off any time soon. Companies are
2 looking at doubling production, for example. So
3 we're going to have these issues with us.

4 It doesn't seem to be advancing. Okay.

5 The infrastructure needs in New Mexico
6 and most of our well, roughly 76 percent of our
7 revenue from oil and gas comes from the
8 southeastern part of the state and about 21
9 percent from the northwest. So the issues are a
10 little bit different. Historically, the northwest
11 region had been primarily a gas producing region,
12 but there's increased interest now in oil
13 production.

14 So in the northwest we have a lack of
15 rail to get the crude to market. There's also an
16 issue with the trucking and transloading of that
17 oil to rail facilities. There's pipeline capacity
18 which is insufficient. There are efforts underway
19 to look at increasing that pipeline capacity for
20 crude oil. There's also an interest in increasing
21 the amount of fueling stations that we have to
22 take advantage of the abundant natural gas

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1 resources that we do have in the northwest.

2 In the southeast, because of the
3 activity, there's a lot of truck traffic. That
4 brings wear and tear on the roads. It's also a
5 safety concern. So there's a lot of issues
6 relating, and I think Commission Fulfer will
7 probably say something about that.

8 The pipeline capacity is incomplete,
9 insufficient, causes a reduced oil revenue. Also,
10 the flaring of natural gas. And then we have
11 needs to get water into the area for production,
12 especially for hydraulic fracturing. That
13 presents infrastructure issues. And there's
14 renewed interest in trying to reuse produced water
15 so that we don't have to use fresh water for those
16 activities.

17 Refining capacity is a problem
18 throughout the state. A lot of the oil has to be
19 shipped out of state to be refined.

20 There's a problem with electric
21 transmission power generation for the increased
22 activity in the oil fields.

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1 We are in the process of developing an
2 energy policy, and there are a number of core
3 objectives. One of those is to establish
4 cooperative relations between the state and
5 Federal agencies to provide a new framework,
6 basically, a new model, for intergovernmental
7 harmonization and development of our assets.

8 Also, looking at increasing or
9 establishing the energy foundation for increased
10 infrastructure in rail, roads, pipelines,
11 refining, processing, and electricity
12 transmission.

13 MR. MARTIN: Some of our efforts to
14 address the infrastructure and other bottlenecks,
15 we are looking at different relations with our
16 Federal agencies. For example, the Federal Indian
17 Minerals Office of the Bureau of Indian Affairs
18 came to us about eight months ago and had problems
19 in processing some negotiated leases on Navajo
20 allottee land. So we provided some funding to the
21 San Juan College there to provide assistance to
22 BIA. We are now looking at expanding that to

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1 provide some help to the BLM in Farmington.

2 We have like a pilot study going on. We
3 want to expand that to allow for industry funding
4 through a university consortium system. We have
5 an MOU with BLM trying to work more cooperatively
6 together. We have another MOU pending on
7 concurrent jurisdiction.

8 So what Federal policies and regulations
9 will support this infrastructure? We need to make
10 sure that Congress adequately funds and staffs the
11 BLM field offices in the oil and gas producing
12 areas. This is revenue to the Federal Government.
13 They get 52 percent of the oil and gas revenue on
14 Federal nonIndian lands. The state gets 48
15 percent. So it's important to both the Feds and
16 to us.

17 And if new rules or regulations are
18 implemented, we need to make sure that there's
19 adequate staff there to be able to handle that
20 increased need. They have insufficient staff now.
21 And if the new regulations are coming down the
22 pipe, it's going to just increase their work load.

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1 So that will conclude my comments. Does
2 anyone else have a presentation?

3 MODERATOR WELSH: President Vicenti?

4 PRESIDENT VICENTI: Good morning.

5 (Speaking in Native tongue.)

6 My name is Ty Vicenti. I'm the President for the
7 Jicarilla Apache Nation. On behalf of my people,
8 the Legislative Council, and the Vice President,
9 I'm happy to be here.

10 In 1982, a United States Supreme Court
11 case, the Jicarilla Apache Nation's inherent
12 sovereignty was affirmed. When the Court held
13 that the Indian tribes can impose tax on
14 nonIndians doing business on Reservations, the
15 State of New Mexico imposed taxes which deterred
16 businesses on Reservations. Now the Jicarilla and
17 the State of New Mexico operate under a coop tax
18 agreement where nonIndian companies can do
19 business without getting taxed twice.

20 The Nation still pays tens of millions
21 of dollars in taxes a year to the State. The
22 Jicarillas do not see any of the funds from their

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1 tax payments come back to the Jicarilla Apache
2 Nation. However, the Nation's ability to collect
3 taxes and royalty payments, the Nation is able to
4 do for itself what the Federal Government has
5 failed.

6 The Nation a able to provide housing,
7 education, police protection, fire protection and
8 so forth. The Federal presence for the Jicarilla
9 Apache Nation is small, with a handful of BIA
10 employees in our community and the major Federal
11 employees being employed by the Indian Health
12 Service.

13 The nation has always realized, by its
14 leadership, has made long-term vision a priority.
15 The Nation's experts and leadership understand
16 that production of oil and gas on its Reservation
17 lands has been its major resources. Maintaining
18 or increasing production through new technology
19 has provided new opportunities for undeveloped
20 areas of Jicarilla lands and allowed for increased
21 production on lands that were originally developed
22 decades ago with old technology.

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1 Recently, the Jicarilla Apache Nation
2 has created a Federal corporation under the name
3 of the Jicarilla Apache Energy Corporation, which
4 was established in 1986 to enhance our development
5 of our oil and gas production on the Jicarilla
6 lands.

7 The Nation sees the need to compete with
8 other reservations, BLM lands. The BIA regulatory
9 structure hinders projects and development of
10 onReservation resources. Recent talk of tribal
11 authorities to expand tribal management to right-
12 of-ways, as well as subsurface leasing, is one
13 measure that the Jicarilla is in full support and
14 anticipates should help in improving lag times for
15 development.

16 But the Nation also recognizes the need
17 for partnering with BIA in development of this
18 policy as well as any negotiating rulemaking in
19 order to ensure the BIA's fiscal responsibility is
20 maintained.

21 The Nation is always looking forward to
22 do more with its resources for its people and

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1 community without having to be unnecessarily taxed
2 by the State. The ability to extend subsurface
3 approval and management of mineral development to
4 tribes is another way to recognize tribal
5 sovereignty and allow tribes to be in charge of
6 their own destinies.

7 Finally, the Jicarilla believe that the
8 development of a comprehensive delivery
9 infrastructure of energy resources, not just
10 transmission lines, seems to be the best to
11 achieve domestic energy independence now and
12 beyond.

13 And at this time, I'd like to introduce
14 our President and Chief Executive Officer who is
15 in the crowd with us, Mr. Fred Vigil. Could you
16 please stand, Mr. Vigil? In charge of the
17 Jicarilla Apache Energy Corporation. And right
18 beside him we have our legal in house, Mr. Dion
19 Killback.

20 For more information on our energy and
21 the field of oil and gas, you can contact Fred
22 Vigil at

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1 -- get your pens ready, (505) 9018549. Thank you.

2 (Speaking in Native tongue.)

3 MODERATOR WELSH: Thank you.

4 Chairman Fulfer?

5 CHAIRMAN FULFER: Thank you for inviting
6 me here today. My name is Gregg Fulfer. I've
7 been working in the oil and gas industry for over
8 30 years, and I'm the chairman of the Lea County
9 Commission.

10 I also serve on several boards: the New
11 Mexico Environmental Improvement Board; the
12 American Counties for Energy Independence, it's an
13 association dedicated to all oil and gas producing
14 counties in the United States, advancing
15 conventional and unconventional energy in the
16 United States; also on the BLM Resource Advisory
17 Council.

18 I'm here today to discuss the oil and
19 gas industry in New Mexico and more so in the
20 Energy Plex of Lea County. Oil and gas is a major
21 part of our state's economy.

22 A recent USA Today article called New

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1 Mexico one of the top ten oil rich states with 965
2 million barrels of oil reserves and 14.6 trillion
3 cubic feet of natural gas.

4 Last year production was up 17 percent
5 for the state, and expected to see an 18 to 20
6 percent increase in 2014, resulting in production
7 of 320,000 barrels per day.

8 Lea County sits atop one of the largest
9 oil and gas deposits in the world, primarily based
10 in the far southeast corner of New Mexico. In
11 2013, Lea County had over 15,000 producing wells,
12 produced over 43 million barrels, had close to
13 14,000 residents working petroleum-related jobs
14 with an average salary of \$80,000 per year, paid
15 over \$900 million in federal, state, and local
16 taxes.

17 The revenue from natural resources has
18 allowed us to invest in our community. With these
19 funds we have invested in infrastructure projects,
20 schools, a new judicial complex, recreational
21 facilities.

22 Too often we forget to invest back in

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1 what is providing the jobs and economic stability
2 and what provides for a robust family to grow for
3 generations. We understand the nature of booms is
4 that a bust eventually follows them. We are
5 working to build a lasting infrastructure and a
6 diversified economic base in the community.

7 Lea County and New Mexico Junior College
8 created the New Horizons Foundation, a 501(c)(3)
9 organization, whose mission is to form
10 partnerships between regional entrepreneurs and
11 technology and apply development capabilities
12 located in their national laboratories.

13 As we have looked at strengthening our
14 community, we developed a Quality of Life
15 Committee to explore economic development,
16 healthcare, recreation, and housing to improve the
17 services and opportunities available to our
18 families.

19 This current energy boom has created
20 many opportunities, but also has brought several
21 challenges. Like other boom communities, we have
22 a critical housing shortage. Our hotels have

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1 become the residence resulting in exorbitant room
2 rates and limited availability. As we attempt to
3 attract new and diverse businesses, it can be
4 difficult for those interested in relocating to
5 Lea County to find a local hotel room. Affordable
6 housing is an urgent challenge.

7 One example would be the Federal tax
8 credits administered through the MFA would be an
9 avenue to bolster housing in our area if the right
10 incentives were put in place.

11 We need Washington to pass legislation
12 that would assist communities helping with
13 shortages in workforce housing. We must find a
14 way to provide affordable housing as communities
15 grow.

16 Increased vehicle traffic is causing
17 accelerated road deterioration due to both heavy
18 trucks involved in construction and oil and gas
19 operations as well as the increase in population.
20 We have public safety concerns due to traffic and
21 need funds for the road repair.

22 Finally, there is a need for

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1 infrastructure improvements, better healthcare,
2 and additional resources for public safety to keep
3 pace with our growing population. A reinvestment
4 of some of the present tax dollars created by the
5 newfound resources into an infrastructure could
6 return many times into the country's energy
7 independence.

8 We need to ensure domestic production
9 increases are not threatened by burdensome
10 regulations. To ensure sustained growth, we
11 support the production tax incentives, approval of
12 LNG exports and responsible approaches to
13 endangered species and environmental regulation.

14 We see the energy industry taking
15 responsible environmental steps and protecting the
16 environment and the native species. Industry and
17 local governments need to be part of conversation
18 in regulatory solutions.

19 Finally, we need Federal agencies to
20 consider local impact as they roll out new
21 regulations. Recently, the BLM altered the
22 schedule of options for oil and gas leases in

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1 contradiction to suggestions from local
2 authorities. Changing from multiple auctions per
3 year to one is detrimental to New Mexico oil and
4 gas production because it impairs our ability to
5 remain competitive with Texas where there is
6 considerably less federal ownership of land and
7 mineral rights.

8 Regulations such as these, and all
9 regulations, must take into account local
10 sensitivities and not be onesizefitsall.

11 In closing, I would like to thank you
12 again for your time in allowing me the opportunity
13 to talk about Lea County. We appreciate your
14 interest in our community and appreciate you
15 allowing us to share other visions to ensure
16 continuing success in the future.

17 Thank you.

18 MODERATOR WELSH: Thank you.

19 CHAIRMAN FULFER: Thank you.

20 Mr. Montoya?

21 MR. MONTROYA: Thank you.

22 I'm here on behalf of the National

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1 Association of Pipeline Safety Representatives and
2 also work with the, and for, the New Mexico Public
3 Regulation Commission. And I'm honored to know
4 that we have two of our commissioners in the
5 audience as well. We have

6 MODERATOR WELSH: Could you pull up mic
7 closer to your mouth?

8 MR. MONTROYA: Madame Chair from the New
9 Mexico Public Regulation Commission, Theresa
10 BecentiAguilar and also Commissioner, Karen
11 Montoya. Thank you for being here.

12 I'll speak about natural gas and
13 hazardous liquids, but they get the honor of
14 dealing with electricity and all other utilities,
15 so I'll leave that up to them.

16 Anyhow, the Pipeline Safety Programs are
17 primarily in existence to ensure safe operation of
18 natural gas and hazardous liquid pipelines. And
19 we do this through a contractual effort with the
20 Department of Transportation, and I know we're
21 here with the Department of the Energy, Department
22 of Interior, but through the Pipeline and

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1 Hazardous Material Safety Administration, we
2 conduct inspections and field audits of all
3 intrastate.

4 And I'm very specific on intrastates
5 because the interstate pipelines, which run across
6 New Mexico and several other states, falls under
7 PHMSA's jurisdiction as far as New Mexico is
8 concerned.

9 What you have on the screen here is the
10 Code of Federal Regulations that we enforce. The
11 ones highlighted in red are the primary focuses of
12 natural gas and hazardous liquid pipelines. And
13 some people may be asking, well, why do we have
14 pipeline safety on the panel and NAPSRS in general.

15 It's because we are constantly
16 addressing issues with existing infrastructure.
17 And in my opinion, if we can address those issues
18 now, not necessarily on the siting part of it, we
19 will overcome them in future expansions and
20 increase in capacity of pipelines, and that's one
21 point that I want everybody to take away from
22 NAPSRS anyway today.

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1 The bullet points that you see up on the
2 screen now are top issues on the national effort
3 within NAPSR. Most of them are related to
4 proposed rulemaking with Congress and PHMSA
5 themselves. Gathering lines, many of you may have
6 heard, some are regulated; some are not. There is
7 discussion on regulating all gathering lines.

8 And I want to be very specific. The
9 Pipeline Safety Program does not get involved with
10 production. We are basically everything
11 downstream, from gathering to transmission to the
12 local distribution companies.

13 The second one is the integrity
14 verification process. It's just going through and
15 looking at records, making sure they are
16 sufficient and support operating pressures. NAPSR
17 has identified a need for PHMSA to provide
18 additional guidance regarding the terms, reliable,
19 traceable, verifiable, and complete.

20 The other one is HCA's, which stands for
21 high consequence areas, and NAPSR supports a rule
22 regarding expansion of the transmission integrity

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1 management elements.

2 And I must say that today is August 11
3 which is national for 811, so it's cool to be
4 here. And as everybody knows, damage to
5 underground utilities is damage from excavation
6 activities is the leading cause of all gas and
7 liquid pipelines, and especially in the local
8 distribution companies. So I want to stress the
9 importance. And one of the bullet points up there
10 was damage prevention. And NAPSR encourages PHMSA
11 to issue a final rule that clearly defines the
12 expectations of an effective damage prevention
13 program.

14 I'm honored to say that New Mexico is
15 recognized as one of the leading bureaus, if you
16 will, of pipeline programs in the damage
17 prevention industry. Although we have a lot of
18 underground utility damages, we are responsible
19 for fiber optic telecommunication and so forth.
20 So as you can imagine, our workload is pretty
21 heavy for us.

22 With that, I just want to give my

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1 contact information. I can go on and on for days,
2 but I know I'm limited on time today, about
3 pipeline safety and what we actually do. It's
4 good to be recognized within this review of the
5 Quadrennial Department of Energy.

6 And so I thank you, and I'm honored, and
7 I'll be happy to answer any questions as we move
8 forward. But I am an advocate of open discussion,
9 so I think I have more for you.

10 MODERATOR WELSH: Great. Thank you.

11 Mr. Fine?

12 MR. FINE: Yes. I would want to
13 identify that I'm New Mexico Tech and Energy
14 Policy project leader, Department of Energy,
15 Minerals and Natural Resources. So I'm wearing
16 two hats today in terms of my comments.

17 MODERATOR WELSH: And can you pull the
18 mic closer to you?

19 MR. FINE: Okay. Is this better?

20 MODERATOR WELSH: Much. Thank you.

21 MR. FINE: Okay. Let me first say that
22 I'm going to respond to the Department of Energy

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1 and the Department of Interior memos to us saying
2 what can we say about enhanced coordination
3 between the State of New Mexico and those two
4 agencies, meaning the Federal Government. Also
5 the broader policy regulation implications of
6 that. And then finally, the reallocation of
7 Government authority, state, local, and tribal.

8 First off, I want to make a comment that
9 the northwest of New Mexico, that's northern New
10 Mexico, is now the frontier of new oil production,
11 and it is extraordinary that all this dates back
12 to October 2011. That production now is at risk
13 because the State of New Mexico did not design
14 with the Federal Government highways,
15 infrastructure, rail, and pipelines to accommodate
16 a soaring production outlook in the northern part
17 of the state following the southeast in time.
18 That's the Manco Shale to the north, Delaware
19 Basin Permian in the south.

20 It is a bottleneck, and the issues now
21 are public safety, stranded oil, all the rest that
22 might discourage production, new production, and

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1 investment. To give you an idea, 105,000 barrels
2 of oil expected from the northwest of New Mexico
3 when virtually no oil was being produced up to
4 2011, 2012.

5 And that oil requires pipelines that,
6 one, have been shut down and moth balled, and a
7 refinery in Farmington that has been closed, one
8 net loss of a refinery in the last 20 years in New
9 Mexico, and a reliance on road. And this is a
10 problem that the State is now addressing, road
11 transport from the north. And there is road
12 transport in the south.

13 And this is an area Secretary Martin
14 touched on earlier, that there is no authority, no
15 regulation, over a new industry in New Mexico
16 which is roughly the transloading industry,
17 meaning truck to rails. That we've had an
18 incident in Bernalillo, the town of Bernalillo,
19 which was the site of a transloading operation
20 from the north, tank cars alongside a local gypsum
21 plant connected to the Burlington, the BS&F
22 Railway. The local people were not prepared for

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1 it. The town authorities, mayor, others, were not
2 informed, and suddenly you had a new industry,
3 oil, in the town of Bernalillo.

4 The State has been appealed that is,
5 Bernalillo had appealed to the State to provide
6 information and technical support. And I would
7 just point out that since this is a Quadrennial
8 Review, where is the civil position on
9 transloading oil by truck to rail? It seems there
10 is no regulatory authority in the Federal
11 Government as well.

12 And this is going to be important
13 because if the projected pipelines, hydro testing,
14 meaning bringing back at least one pipeline from
15 the north, if that project fails for any reason,
16 then most of that oil, 45,000 barrels a day, will
17 go on highways. And you can imagine towns,
18 communities, and local people concerned about oil
19 and safety and the economics and so on.

20 So I point that out as a need for state
21 and federal and tribal cooperation. The road
22 system has never been prepared in the north for

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1 what is projected now in production.

2 Second point, 22 thousand Navajo
3 allottees, in January of this year in the
4 allotment area, north on 550 in the northern part
5 of New Mexico, had signed agreements, leases, with
6 two oil companies. And under rules, they were
7 about to receive payment. And this is a poverty
8 area, of stressed poverty among the allottees.

9 To be very brief, the allottee problem,
10 it goes back to 1895 in New Mexico and has never
11 been resolved. And so those who know that area
12 call it a checkerboard area; meaning, there is
13 jurisdiction, Navajo tribal, Navajo allottee,
14 meaning Bureau of Indian Management, BIA, federal,
15 under trusteeship, BLM, Bureau of Land Management,
16 state, private, and all the rest.

17 Now, that is a checkerboard, and the
18 jurisdictional problems now impact on production
19 and investment in oil. So the State stepped up,
20 received a visitation from the Federal Government
21 in Santa Fe asking for help because their budgets
22 from Washington were inadequate, they had no staff

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1 to get consent on those leases, and everything
2 seemed to stop.

3 Governor Martinez stepped in and made a
4 major address in Farmington saying the State of
5 New Mexico will assist the Federal Government,
6 meaning BIA, to process those leases with the
7 assistance of the School of Energy at the San Juan
8 college.

9 And that combination took place, and the
10 State did fund that, and quickly, with the State
11 as a catalyst and as a funding agent a new day
12 seemed to dawn, and that is a new relationship
13 between New Mexico and the Federal agencies in
14 charge. And that situation is now ongoing in
15 terms of how to expand that to the Bureau of Land
16 Management.

17 Secretary Moniz said earlier

18 MODERATOR WELSH: Can you wrap up, Mr.
19 Fine? Your five minutes, can you wrap up?

20 MR. FINE: Secretary Moniz earlier said
21 that every state in the West is different, and the
22 Federal Government, at least here today, is

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1 recognizing by this review the differences.

2 I would just add and conclude that the
3 regulatory authority, OCD of New Mexico, has tens
4 of years of a body of rules which are local and
5 know best with respect to regulation in New
6 Mexico. What is needed, if you harmonize the two,
7 is respect for what is taking place in the
8 regulatory evolution in the State of New Mexico.

9 Thank you.

10 MODERATOR WELSH: Sorry to cut you off,
11 but I'd like to get into some Q&A and we'll have
12 time for some final thoughts.

13 So I've heard from all of you a very
14 interesting theme or thread throughout your
15 comments, and that is -- and I love your, if I may
16 use your words, Mr. Martin -- intergovernmental
17 harmonization.

18 So I'd like to talk about and ask you
19 the question of where specifically under the
20 existing authorities, what relevant processes to
21 oil and gas infrastructure for regulating those,
22 need more clarity? And how -- and you were very

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1 clear, Mr. Fine, in talking about how the Federal
2 Government is needed in one new industry. But
3 what do you think the federal role is with regard
4 to existing processes on regulating oil and gas?
5 And is there a role for the Federal Government?

6 MR. MARTIN: Well, certainly there is a
7 role for the Federal Government. There are
8 certain requirements that the Federal Government
9 has that the State does not, especially related to
10 environmental impact and threatened or endangered
11 species. So there are some requirements that the
12 Federal Government has and the State does not, and
13 that presents a more lengthy permit process for
14 whether it's right-of-way or whether it's for
15 applications for permit to drill.

16 So the State is able to process things
17 much more quickly than the Federal Government
18 does. This is a concern to industry, and from a
19 business standpoint, when a company is looking to
20 invest, for example, in the southeast if they are
21 running into difficulties in getting things
22 approved in a timely manner, they may prefer to

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1 move across the state line into Texas and provide
2 their resources there where they do not have those
3 sorts of problems.

4 So it's an issue for the State, and we
5 have to recognize that we're in competition with
6 surrounding states, and we need to have processes
7 in place that are as efficient as possible.

8 And talking about efficiency, I mention
9 that we have the MOU with the BLM, and that's one
10 thing that we're looking at is how can we work
11 together more efficiently. You know, inspections,
12 for example. Do we have to have both agencies
13 inspect the same thing? Can we work out something
14 there on reporting data? Should the companies
15 have to submit two different reports to two
16 different agencies? Isn't there some IT
17 capability that we could bring in and would
18 satisfy both agencies?

19 We're looking for any number of ways
20 that we might be able to think a little bit
21 differently because we have issues not quite as
22 severe as BLM, but we have problems in hiring and

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1 retaining people in our field offices. We
2 certainly can't compete with industry, we can't
3 even compete with the salaries of people that are
4 working in the area that are getting much higher
5 wages than we can afford. BLM has that issue,
6 plus they have budget issues.

7 So the more that we can try to work
8 together and help each other out, the better both
9 of us will be. And I compliment the state BLM
10 office for being willing to consider some of these
11 approaches.

12 MODERATOR WELSH: Thank you.

13 Mr. Vicenti?

14 PRESIDENT VICENTI: I agree with the
15 panel's what the issues are and Mr. Martin's
16 comments. However, I'd like to go a little
17 further than that to extend the invitation to
18 Federal and State authorities to come up on the
19 Jicarilla Reservation to actually see for
20 themselves what our area of production and our
21 area of oil and gas production is really like up
22 on the Jicarilla.

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1 And we, too, along with other tribes
2 that have the oil and gas, we have issues with the
3 federal and at the state level. But we've always
4 invited, we've always invited the federal and
5 state agencies to come and visit us, come see what
6 we have. See what our concerns are.

7 Communication cooperatively with the
8 state and federal agencies I think is one of the
9 most important issues that needs to be addressed,
10 because there's so many regulations at hand at the
11 Federal and State level. But have we ever come to
12 visit one another to see and look at what we
13 really have in our respective areas?

14 So I think communication is one of the
15 most important aspects that we need to address
16 with our issues in the development of oil and gas
17 in the State of New Mexico, not only in the State
18 of New Mexico but across the nation.

19 Thank you.

20 MODERATOR WELSH: Thank you.

21 Chairman Fulfer?

22 CHAIRMAN FULFER: Looking at it from a

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1 local standpoint, we have a lot of companies that
2 will come in, and they're totally confused
3 sometimes by the dual role or the BLM regulations
4 and the state regulations. I think for a large
5 part it even creates investment from coming to our
6 state.

7 And I have to agree with Secretary
8 Martin on finding ways to work together that maybe
9 the State could become the primacy of the
10 regulations and the regulator and BLM provide more
11 guidelines and oversight. And I think that would
12 further the speed of our permitting and a lot of
13 other things.

14 But there seems to be a lot of
15 confusion, especially from the companies maybe
16 coming in to our state from Texas that are not
17 used to a lot of federal lands and meeting all the
18 different guidelines from the two different
19 agencies. It really creates some confusion.

20 MODERATOR WELSH: Thank you.

21 MR. MONTROYA: Thank you, Peggy.

22 From a pipeline safety standpoint, I

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1 think getting individuals involved, and you heard
2 from a gentleman on the panel earlier in
3 addressing issues up front.

4 There is there tends to be some
5 misunderstanding on overlapping jurisdiction here
6 locally. I know my office gets quite a few phone
7 calls for intrastate pipelines, and all I'm doing
8 is advising them to reach out to other agencies.
9 But it would be helpful if there was some type of
10 streamlined approach identifying that overlapping
11 responsibilities of both the Federal and State
12 agencies.

13 And the permitting process, I would
14 agree, is the critical path for the most part. So
15 that's really all I have to add on that question.

16 MODERATOR WELSH: Thank you.

17 Mr. Fine?

18 MR. FINE: I would add to this that the
19 Federal Government, the Department of Energy,
20 which over the years has created major studies,
21 has not done one recently on the refining capacity
22 of the United States. There is no recognition yet

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1 how to adapt to the new oil which is, in New
2 Mexico, a sweet API 40, essentially similar to the
3 North Dakota oil. We have a sweet oil. In other
4 words, a light oil in the United States. That is
5 a high volume oil, and we have unlimited refinery
6 capacity.

7 The State of New Mexico would require at
8 least one or two refineries in terms, in New
9 Mexico, to take, to provide the takeaway from
10 existing production and future production.

11 So I would say we need the Department of
12 Energy to begin a blue ribbon commission,
13 bipartisan, on which the states in the West, the
14 producing states, and governors' offices, would
15 participate and industry would be involved, a blue
16 ribbon commission on a study of what we have in
17 terms of refining capacity, the new oil that we
18 have, and the projections for that oil.

19 That capacity, new refining investment,
20 in my brief review, is not impossible. And I just
21 give you an idea that many refineries are now
22 possible with new technology. And this industry,

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1 which has declined because of import dependence on
2 foreign oil, can be revived and may be studied at
3 the conclusion of a blue ribbon study.

4 One other point I didn't make with
5 respect to what I said about the allottee. The
6 allottee is a tribal person or descendant,
7 independent of tribal authority in terms of land.
8 Since 1895, and then at the end of the '30's, this
9 land was given to individual Indians, 160 acres
10 per. And that is the distinction I made about
11 allottees.

12 So to wind it up, a Blue Ribbon
13 Commission, Western states producing the new oil,
14 the unconventional oil, and the refining capacity
15 to take that oil and keep it in the U.S. going
16 forward for the next 30, 40 years.

17 MODERATOR WELSH: Thank you.

18 New Mexico is clearly a leader in oil
19 and gas refining and production. The QER Task
20 Force is grappling, as Secretary Moniz said, with
21 infrastructure of these industries this year. A
22 report will come out at the beginning of next

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1 year.

2 I wondered if you all could comment on
3 the lessons you've learned, representing your
4 various parts of government and industry, on how
5 New Mexico is approaching their oil and gas
6 infrastructure and how other states and regions
7 could benefit from New Mexico's leadership?

8 Anybody want to tackle that? Mr.
9 Montoya? Lessons learned.

10 MR. MONTROYA: I'll go first, but I'm
11 sure these experts have more to say.

12 A few years ago New Mexico experienced
13 one of the coldest days in 50 some odd years. And
14 it really challenged the capacity of our natural
15 gas infrastructure. Now all the research that's
16 been done and all the papers that I've read have
17 indicated we had sufficient capacity but not the
18 supply. So as far as the supply and demand goes,
19 these individuals probably can speak on that.

20 I have received several phone calls on
21 capacity issues with our petroleum pipelines, and
22 the common carrier definition in New Mexico and

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1 what is it and how do it get access to it and so
2 forth. That doesn't necessarily fall under the
3 Pipeline Safety Bureau, but again, I'm having to
4 address those concerns here locally.

5 MODERATOR WELSH: From a county
6 perspective, Chairman Fulfer?

7 CHAIRMAN FULFER: You know, from housing
8 to electricity to pipelines to healthcare, we've
9 faced infrastructure problems all the way around.
10 Working with electrical companies, they are
11 probably two years behind in infrastructure in our
12 area. The generating companies are really doing
13 well.

14 But as far as things learned from that,
15 it's become there's been a lot of things learned.
16 Electricity we've learned that it doesn't happen
17 until there's demand, and there's a long lead time
18 waiting for the engineering to catch up. And it's
19 been just working with them and trying to educate
20 them on what's there and getting them to talk to
21 the end user, the oil companies and so forth.

22 Housing has been one of our hardest

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1 issues that we've faced that we still haven't
2 solved. We've worked with MFA trying to garner
3 some of tax credits to come to our area. Housing
4 is still an issue that we haven't been able to
5 solve. We have people living in vehicles.

6 We did a housing study. Over 49 percent
7 of the people that come into our area leave at the
8 end of day, most of them going back into Texas.
9 It's an issue that we face that we haven't found
10 complete answers. We're working through a lot of
11 different methods to try to combat that.

12 So, roads are deteriorating a lot faster
13 than we can fix them. But we've tried several
14 avenues there. We see a lot of new resources,
15 natural resources, coming on board.

16 We see a lot of revenue leaving. We're
17 not seeing it reinvested back into the area that's
18 making this country great. It's leaving and going
19 to other areas for other purposes, and there's
20 very little reinvestment back into infrastructure
21 of where we're gaining our jobs and our economic
22 stability from.

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1 So I don't have a lot of answers for you
2 today.

3 MODERATOR WELSH: Fair enough.

4 Mr. Fine?

5 MR. FINE: Yes. In northern New Mexico,
6 the producers, in what I call this frontier
7 region, which is the San Juan Basin, they are
8 faced with differentials because of the pipeline
9 deficiency -- I'm sorry -- a refining deficiency
10 (inaudible) and the cost to them is higher than
11 the national average or even the southeast. And
12 this is a disincentive. And it is a constraint --
13 an infrastructure constraint against economic
14 development.

15 Also, the Quadrennial Review language
16 called concern about monopoly and having
17 competitive prices and capacity, and that's called
18 for at least preliminary in the north (inaudible).

19 So my point is, is that the refining
20 capacity is absolutely a constraint now to oil
21 development in the frontier in northern New
22 Mexico.

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1 And I will make a point, because my
2 colleague here on the left is talking about
3 pipelines, I'll make a point about rail. Rail is
4 a competitor to pipelines in this new period we're
5 in, and it's pipeline against rail to see, of
6 course, the country needs more of both. But rail
7 in northern New Mexico is required to sustain the
8 five county and Navajo economies, based mainly on
9 coal and moving toward more oil now.

10 So the point is that rail is new and
11 challenged and the Federal Government's challenge
12 to rail is regulation. And the new regulation
13 will be what kind of tank car will be qualified to
14 carry oil on track.

15 And also there's a problem of regulation
16 over the new track in New Mexico with the Federal
17 Government. Who has authority over the rail? The
18 State has rail limited authority, but no one can
19 go inside, neither federal or state at the point
20 of New Mexico communities to determine health and
21 safety issues within the volumetric, what is in
22 the tank car.

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1 So my point is, we might say here, in
2 addition to the pipeline, rail is the competitor.
3 But rail in New Mexico is recognized as an engine
4 for regional development in northern New Mexico,
5 and it creates jobs, and it creates the potential
6 for manufacturing, agriculture, light, sand,
7 hydraulic sand, fracking. A great deal of freight
8 moves by rail as opposed to pipelines, but I'm not
9 taking a position. The State needs both.

10 MODERATOR WELSH: Thank you.

11 Any other comments on lessons learned
12 from the Jicarilla Apache Nation?

13 PRESIDENT VICENTI: Yeah. In northern
14 New Mexico it's an issue being in a remote area,
15 doing oil and gas production and the process of
16 transmission of the liquids. A lot of these
17 systems are dilapidated gathering systems that we
18 are concerned about, but environmental impact,
19 along with livestock, as well as human impact.

20 Those are other major concerns up on the
21 Jicarilla. And I think information to you all is
22 the it's a lot different on reservations, Indian

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1 Reservations, than it is out off the Reservation
2 because there are other loops to jump through,
3 other sovereignty process that the oil and gas
4 companies have to adhere to if they want to do
5 business on the Reservation lands.

6 And on the Jicarilla, we have companies,
7 over 200 companies, that do business on the
8 Jicarilla Apache Reservation. However, they are
9 regulated by the tribal regulations that we set in
10 place, along with other policies that are in
11 place.

12 So it's a little difficult for oil
13 companies to come up on Reservations to do
14 business, but it can be done. But the thing that
15 we're kind of concerned about is environmental
16 impacts, like I said before.

17 And I think and I hope that new
18 regulations that come out that will govern the
19 production and the processes of gathering these
20 liquids, that they will fall in place to enhance
21 the production of oil and gas and be productive
22 for both entities that come onto the Reservation,

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1 that do business on the Reservations.

2 And we are looking at the long run as
3 far as regulations is concerned, and we are
4 concerned about that. But that's -- I think,
5 that's what needs to be done is just, you know,
6 have better regulations, better cooperation from
7 entities at the Federal and State level so we can
8 move forward from here.

9 Thank you.

10 MODERATOR WELSH: Thank you.

11 PRESIDENT VICENTI: You bet.

12 MODERATOR WELSH: Mr. Martin, you have
13 the final word.

14 MR. MARTIN: Well, one thing what we've
15 learned is that we can have these cooperative
16 agreements and access expertise out there.

17 For example, I mentioned the work at the
18 San Juan College. They have faculty and also
19 students that can provide assistance in some of
20 these environmental impact assessments, some of
21 the cultural studies that is required on Indian
22 land, some of the things that the State does not

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1 have.

2 So we think there's an opportunity to
3 assist our Federal counterparts in providing
4 access to expertise through some of the state
5 colleges and universities.

6 MODERATOR WELSH: Well, we've learned a
7 great deal today about the challenges in the oil
8 and gas infrastructure and the innovative
9 approaches that New Mexico and the Jicarilla
10 Apache Nation is taking.

11 Please join me in giving this stellar
12 group of speakers a round of applause. Thank you
13 all very much.

14 (Applause.)

15 We'll next hear from our last panel. If you'll
16 just give us a moment to set that up. Thank you.

17 (Panel 3 takes the stage.)

18 MODERATOR WELSH: All right. Well, let
19 me grab your attention again, if I may.

20 I'm Peggy Welsh with Energetics. I'm
21 the facilitator for today's meeting, and I'm
22 honored to have our final panel join us here up on

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1 stage. I'd like to introduce them and we'll get
2 started.

3 So this morning, we've heard about the
4 infrastructure needs and challenges of the
5 electric system, the oil and gas industry. And
6 today we're going to close with a discussion on
7 the vulnerabilities and the desired
8 characteristics of the future energy system. And
9 so that includes everything. We've not talked
10 much about petroleum yet. We'll talk about that
11 on this panel. So we're going to take the
12 discussion a little broader, and hopefully
13 conclude on a very high note.

14 So with that, let me introduce our
15 distinguished panel.

16 We have President Ben Shelley of the
17 Navajo Nation.

18 Dean Randy Pacheco, School of Energy at
19 San Juan College.

20 Steve Catanach, Light and Power Manager
21 for the City of Ft. Collins, Colorado.

22 Mike Mertz, Director, NERC Regulatory

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1 Compliance at PNM Resources.

2 Frank McRae, Director, Energy Resources
3 Department, the City of Mesa, Arizona.

4 And Jeff Pillon, Director, Energy
5 Assurance of the National Association of State
6 Energy Officials.

7 President Shelly, the floor is yours.

8 PRESIDENT SHELLY: Okay.

9 Greeting. I'm Ben Shelley, President of
10 the Navajo Nation. The Navajo Nation, like many
11 states, remain concerned about the financial
12 impact of transitioning away from non-renewable
13 national resource.

14 Unlike many states, the Federal
15 Government developed the Navajo Nation economy.
16 However, we do have a unique government-to-
17 government relationship with the Federal
18 Government, which is part of sacred treaty and
19 trust responsibility.

20 The Navajo Nation is committed to
21 diversifying its energy portfolio, and we recently
22 passed the Energy Policy Act of 2013, the Navajo

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1 Nation did, which my administration has
2 spearheaded that. This is a big step towards
3 enhancing energy security and cleaner environment.

4 Earlier this morning, Senator Heinrich,
5 I asked a question about the energy that was going
6 through the Senate and the House, we got the
7 answer on that. We get it through, we have the
8 same leveling field as the state would have.

9 The Navajo Nation -- the Navajo people
10 are deeply about our homeland. The people want to
11 see more options for us to develop cleaner energy.
12 They do care about their homeland.

13 Part of developing our energy
14 infrastructure and creating job means we must
15 partner with states and other outside entity.
16 Mainly, we're doing partnership with the State of
17 New Mexico. Right now we're building on a fee
18 land of state, a railroad import/export and
19 through, and we're building a railroad all the way
20 from Larue to Farmington, and that's a go. It's
21 going to be starting soon.

22 Part of the development energy

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1 infrastructure is creating jobs, meaning we must
2 partner again with everybody else we can find.
3 Infrastructure is the key element for economic
4 growth. Infrastructure affects market, the
5 investment, economy, productivity, and
6 competitiveness. Infrastructure enables change
7 and can affect growth through many networks.

8 Simply, a long-term investment in
9 infrastructure reduces the cost of the delivery
10 products through the use of road, network, and
11 electricity. Maintaining well-balanced systems on
12 Navajo means budget cannot be squeezed, law must
13 be flexible for growth, and we need support for
14 technology. Furthermore, investment will require
15 commitment and the Navajo Nation has a large
16 percentage of energy resource that can be used to
17 supply the demand.

18 We have a several hundred year supply of
19 fossil fuel and renewable energy. In this area,
20 we also own a coal mine. The Navajo Nation and
21 all tribes needs to have a seat at the table when
22 we talk about future energy system.

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1 A large percentage of energy resource
2 exists on tribal land. I recommend to the current
3 Federal Administration for working for tribes in
4 government-to-government basis. We must
5 strengthen this relationship more.

6 One of the critical thing that have work
7 on is for Federal Government to work with tribes
8 at the beginning of the energy projects instead of
9 working against us at the end.

10 We have witnessed real success in regard
11 to responsible emission control and looking
12 forward to developing renewable in the future.

13 I look forward to seeing streamlined
14 efforts become the norm, and for the Federal
15 Government to realize that tribes wants to develop
16 non-pollution energy source. However, we are
17 limited in developing capital, and due to the
18 unique land status, we have difficulty in
19 attracting outside capital.

20 It all boils down to making -- creating
21 jobs and we need to be able to get there with
22 everyone's help. And those are some of the things

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1 -- there's so many things that we get involved in
2 the red tapes of the CFR when the tribal -- when
3 the Government sits on you, it's very hard to
4 create a team, which I'm talking about is the
5 energy team.

6 I'd like to create a team and play the
7 energy field instead of being the audience. And I
8 know the Navajo Nation's capable of doing that.
9 We have the expertise. We have our young kids
10 come back. They're educated in these areas. And
11 I think this Nation -- the Navajo Nation's ready.
12 We have a lot of projects out there that we need
13 to capitalize on. We have asked for the
14 Department of Energy and others to help to get us
15 started on this.

16 Some of these projects, renewable
17 energy, are shovel ready. I tell you now, they
18 are shovel ready. We just need somebody to fund
19 us to plant the seed and let us go, and I know we
20 will do our part. Thank you.

21 MODERATOR WELSH: Thank you.

22 Dean Pacheco?

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1 DEAN PACHECO: Well, good morning, and
2 thank you very much.

3 I'd like to take my time to bring to
4 your attention and ask for your help. Work force.
5 And important here is the history of San Juan
6 College and the School of Energy and where we're
7 at today and the future.

8 So we got our start in about 1998. The
9 energy industry there, we have two major power
10 plants. The oil and gas industry, we have a coal
11 mine. They came to the community college because
12 they realized that their workforce was retiring,
13 workforce was going to leave, and would possibly
14 leave the area.

15 So they came to the Institution and they
16 said, look, we need a workforce quickly. We need
17 you to start addressing the people that are
18 working in the field, the process operators, the
19 people that are working in the power plants, the
20 maintenance, the mechanics, the people that are
21 working down in the coal mine. And you see, we've
22 got the engineering covered, we've got the geology

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1 covered, but the people that are actually out
2 there producing energy and power, we cannot find
3 individuals that want to work for us, can you help
4 us.

5 And it was pretty simple. We started
6 the programs -- starting the programs wasn't
7 simple, finding the people was pretty simple.

8 So at that time in Washington, D.C., we
9 were listening to people testify about peak oil
10 and peak natural gas, and so prices were climbing
11 and San Juan Basin's primarily a gas basin. The
12 power plants have always paid a really great wage.
13 It's a place you can build a career, have a really
14 great job. So at that time, you know, finding
15 people was difficult -- easy and difficult at the
16 same time.

17 And the Institution started the School
18 of Energy and they've named me Dean. I've been
19 the only Dean -- the first Dean and the only Dean.
20 I've been there for 12 years. And there was one
21 thing that always stuck in my mind because I come
22 from the oil and gas industry. And what's going

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1 to happen during the bust. I mean, what will
2 happen to the School of Energy when we go away.

3 Well, that day came, and then recently
4 they announced they would shut our two power
5 plants down, or we would have partial shutdowns.
6 And looking at the demands for energy, I was
7 standing there -- this was about 2008 -- thinking
8 that the demand for the workforce would actually
9 maybe somewhat subside. It wouldn't go away, but
10 there would be a slight decrease.

11 Much to my surprise, there was a slight
12 lull in the number of people that the energy
13 companies were requiring. That lasted for about
14 twelve months, and then their demand continued.
15 And as we came out of this recession -- this
16 country came out of the recession, the Baby
17 Boomers started retiring once again and now here
18 we are 2014 and the demand is just far too great
19 for the School of Energy to meet.

20 The Institution has declared they will
21 build -- or, we are currently building a 65,000
22 square foot facility. It's \$15.6 million. Half

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1 of that is privately funded by the energy industry
2 because this is what they face. They cannot find
3 a qualified workforce. They cannot find a
4 workforce that can pass a drug screen, a workforce
5 that can pass a background check. We can talk
6 about generating kilowatts and a gallon of
7 gasoline or a quart of oil, but none of that will
8 happen without a workforce.

9 So I think collectively today, we can
10 talk about working collaboratively with State and
11 Federal agencies. But once again, I mean, the
12 workforce, the demand for qualified people to help
13 us in this country deliver the needs we need for
14 power is going to be tremendous.

15 Thank you very much.

16 MODERATOR WELSH: Mr. Catanach.

17 MR. CATANACH: Well, good morning,
18 everybody, and thank you for this opportunity to
19 address the QER.

20 A little of background. I'm the light
21 and power manager for the City of Ft. Collins.
22 The City provides four utilities to its citizens:

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1 water waste, water, storm water, and electricity.

2 We are a community of about 151,000
3 people. The electric utility serve about 68,000
4 customers. And we're the 42nd largest municipal
5 utility in the country out of about 2,000
6 municipal utilities.

7 The opportunity being run by our city
8 government provides is the fact that what we do
9 reflects the community values of our city. So as
10 a result, the City of Ft. Collins has established
11 some very aggressive goals, both are related to
12 greenhouse gases and energy efficiency.

13 In 2009, the City Council adopted a goal
14 of producing the City's overall greenhouse gas
15 emissions by 20 percent below 2005 levels by 2020,
16 and 80 percent by 2050.

17 The end result of that for the electric
18 utility, because electricity is responsible for
19 approximately 50 percent of the emissions in our
20 community, is that we have adopted some very
21 aggressive energy efficiency and other programs
22 that have set us on the path of significantly

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1 affecting our greenhouse gas emissions.

2 We're currently also examining an
3 opportunity to perhaps reset our goal to 80
4 percent below 2005 levels by 2030 by addressing
5 not only the electricity sector aggressively, but
6 also the heating and cooling, natural gas,
7 transportation, and waste environment. So we're
8 currently in the process of planning that and
9 expect to provide a report to our City Council as
10 to the cost and the opportunities that we would
11 have in pursuing those goals.

12 The panel we're on, of course, is
13 talking about vulnerabilities and what the future
14 systems look like. We're a distribution utility.
15 We're partial owner in a power authority that
16 provides large generation and transmission. And
17 as we look to that future and what we're going to
18 look like, there are certain areas that we
19 certainly see those vulnerabilities. And those
20 have to do with the both physical environment, the
21 cyber environment, and the business environment
22 for us.

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1 As we look at physical vulnerabilities
2 and changing climate, we have experienced more
3 severe storms in Colorado, and we certainly
4 recognize the value of a very reliable system to
5 our customers.

6 In Ft. Collins, we're blessed with the
7 fact that in 1962, our City Council directed the
8 City to begin all new construction would be
9 underground. At that time, we had to invent
10 components that would go into those programs. A
11 lot of the technology didn't exist. In 1984, the
12 City Council then directed us to underground all
13 of the remaining overhead in the City. So as a
14 result, we are 98 percent underground in the City.

15 What that means is we have an extremely
16 reliable system. I'm one of the few utility
17 directors you'll meet that actually sleeps when
18 you have a blizzard.

19 But what does that mean? Economically,
20 the value to that -- to the City is tremendous.
21 We have chip manufacturers in town. We have some
22 very high-tech industry in our community that the

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1 lights blinking can cost them millions of dollars
2 in production.

3 Well, because we have that high level of
4 reliability, we ensure the strength of our local
5 businesses by not negatively affecting our system.

6 So certainly as we look to the future
7 and trying to adapt our systems to weather, the
8 changing climate, and the changing environment, we
9 have -- you know, certainly, we see the value in
10 this and have had many discussions with others
11 about it.

12 The other area that is significant is
13 changing business. For the first time rather than
14 a single delivery to our customers, customers have
15 an opportunity with solar, other distributed
16 generation, to take some of their power generation
17 into their own hands. And as we look to the
18 future and those costs continuing to drive down,
19 we see it as critical is identifying what our
20 business is going to look like in the future, and
21 also what we're going to do to address the
22 aggressive goals our Council has set.

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1 One of the areas we're looking at is a
2 program we're titling the Integrated Utility
3 Services, which much like a performance
4 contracting structure that is very common for
5 large businesses and industry, we're developing
6 programs where we can apply that same model to
7 residential and small commercial.

8 And as I learned recently, we've been
9 the go-ahead to develop a pilot and we'll be
10 kicking that off at the beginning of the year.
11 Certainly, we have helped our customers in the
12 past adopt renewable energy. And I do see that as
13 our role as an energy provider. It may be a
14 little bit different resource that we provide, but
15 the City will continue to try and support our
16 customers.

17 And with that, I'll leave it to
18 questions.

19 MR. MERTZ: Thank you. I appreciate the
20 opportunity to participate in the QER process.

21 I'm Mike Mertz, the Director of NERB
22 Regulatory Compliance at PNM Resources. It's a

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1 role that includes oversight of our critical
2 infrastructure protection.

3 So a little about PNM and PNM Resources.

4 PNM Resources is the holding company for
5 two utilities, PNM and PNMP, that collectively
6 serve approximately three-quarters of a million
7 people throughout Texas and New Mexico. We are
8 the only publicly-traded company with headquarters
9 in New Mexico.

10 As an electric utility involved in
11 ensuring the reliability and security of the North
12 American Grid, we're concerned not only about the
13 significant traditional landscape such as extreme
14 weather that was just mentioned, aging
15 infrastructure, but also with existing and
16 emerging risks in the physical and cyber security
17 arenas.

18 Like others in the energy sector, PNM
19 Resources remains vigilant in ensuring the
20 protection of our assets. Our commitment to the
21 customers we are privileged to serve demands
22 nothing less.

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1 Threats to the reliable operation of our
2 grid are constantly growing and rapidly evolving.
3 As a result, we're continually refining and
4 adapting our programs to quickly detect
5 vulnerabilities and protect our systems from a
6 wide variety of threats ranging from coordinated
7 nation states, to sophisticated cyber criminals,
8 to individuals with malicious intent.

9 Certainly the events of the last several
10 years have caused both industry and Government to
11 reassess the security of the grid, recognizing the
12 need to enhance physical and cyber security
13 measures and to accelerate investments, to build
14 additional resiliency and security into our
15 systems.

16 Partnerships. So beyond protecting our
17 infrastructure, effectively sharing timely
18 information with other utilities and Federal
19 agencies is critical to serving our customers with
20 reliable, affordable, and secure electricity.

21 As threats become more sophisticated, we
22 need to foster additional public-private

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1 partnerships while expanding outlets to further
2 provide coordination between Government and
3 private sector.

4 Although our company continually
5 assesses risks and improves its securities
6 postures to align with new and emerging resources,
7 the Federal Government with sophisticated
8 intelligence gathering capabilities is best
9 positioned to help identify, evaluate, and
10 communicate threats while providing assistance in
11 defending our systems and infrastructure from
12 coordinated criminal and nation state threats.

13 The changing nature of threats and
14 vulnerabilities also makes it difficult to address
15 cyber and physical security from a policy
16 perspective. Where Federal policy is necessary,
17 we must ensure that any standards for the private
18 sector do not inadvertently prevent new
19 technology, but rather promote investments while
20 providing utilities a clear path for rate
21 recovery.

22 We must also be careful to avoid

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1 attempts to develop standards targeted to only
2 specific threats or vulnerabilities, and ensure
3 they are technology agnostic as reactive policy
4 simply cannot keep up with the cyber threat.

5 Today, the electric and nuclear sectors
6 are the only sectors subject to mandatory and
7 enforceable critical infrastructure protection
8 standards that address both cyber and physical
9 security.

10 Long before FERC approved the critical
11 infrastructure protection standards in 2008, we
12 were planning on implementing a wide variety of
13 additional steps to protect essential systems and
14 other key elements of the grid.

15 PNM Resources shares FERC's concerns
16 outlined in a recent directive to develop
17 additional physical standards for critical
18 infrastructure, and we will continue to be active
19 participants in the standards development process
20 to achieve those goals.

21 The FERC directive also reflected our
22 view for all standards development, that system

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1 owners and operators should have considerable
2 flexibility in implementing protective measures
3 based on their familiarity with their own service
4 areas, assets, and the unique qualities of their
5 customers.

6 The one-size-fits-all approach simply
7 does not work in the security realm. Where
8 standards must exist, we need to continue to work
9 together to ensure they allow the private sector
10 the flexibility to implement the appropriate risk-
11 based measures necessary to fulfill the
12 obligations of the customers we're privileged to
13 serve.

14 In summary, the electric grid is an
15 extraordinarily complex machine that continues to
16 evolve and adapt with new technology. It supports
17 nearly all other critical infrastructure that we
18 rely on for the safety and security of our nation,
19 and it touches nearly every element of our daily
20 lives.

21 But the grid is not immune to existing
22 and emerging physical and cyber threats. While we

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1 implement a wide variety of controls to protect
2 our assets, many threats are best addressed
3 through public-private partnerships rather than
4 through prescriptive policy.

5 We applaud the many efforts underway at
6 DOE in improving security of energy delivering
7 systems, and we believe these existing
8 partnerships should be expanded to allow for
9 better information flow between the private sector
10 and Government.

11 New partnership should also be explored
12 to support financing mechanisms for resiliency and
13 security investment. And Government policy should
14 be shaped to provide regulatory certainty so that
15 utilities can continue to maintain a resilient,
16 modern, and secure grid.

17 I appreciate the opportunity to
18 participate in the QER process.

19 MODERATOR WELSH: Thank you.

20 Mr. McRae.

21 MR. McRAE: Good morning. I'm Frank
22 McRae. I'm the Director of the Energy Resources

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1 Department of the City of Mesa, Arizona, which is
2 our gas and electric utilities. Thank you very
3 much for the opportunity to speak today on some of
4 the challenges and vulnerabilities facing the
5 energy utility industry.

6 We began investing in our energy future
7 in 1917 when the City of Mesa purchased the
8 utility from Dr. Chandler, and we've been
9 providing gas and electric utility services to a
10 portion of our City since then.

11 Today, the City provides electric
12 utility service to about 16,000 customers and
13 natural gas services to almost 60,000 customers.

14 Noted on the slide is the receipt of
15 some awards from the American Public Gas
16 Association. The award from the American Public
17 Power Association was their reliable public power
18 award, also known as RP3.

19 We're also members of the American
20 Public Power Association and the American Public
21 Gas Association. These organizations provide a
22 number of tools to help us identify and develop

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1 plans to achieve the balance that the Quadrennial
2 Plan envisions.

3 We rely sole on the regional wholesale
4 market on our electric side to meet our customers'
5 requirements. Those requirements amount to about
6 3,000,000 kilowatt hours a year and about 85
7 megawatts during the summertime.

8 Achieving the goal of a long-term -- and
9 I want to emphasize long-term balance of creating
10 energy economic development opportunities while
11 also ensuring energy utility systems remain safe,
12 reliable, secure, and affordable, and that we are
13 stewards of the environment has made it extremely
14 challenging by events that disrupt our normal
15 operating conditions.

16 Events such as extreme weather. In
17 Arizona, we have what are known as haboobs and
18 microbursts, and these can cause incredible high
19 wind speeds which cause damage to our above-ground
20 infrastructure.

21 Our long distance transmission lines
22 which connect generating sources with our load

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1 centers, which cover long distances, those can be
2 susceptible to fires created by drought
3 conditions.

4 So those types of events are something
5 that it's normal practices for us to be prepared
6 for those, but they definitely do cause challenges
7 for us.

8 As well as inadvertently high
9 temperatures for extended periods of time will
10 cause stresses on pieces of equipment such as
11 transformers, but as they get older in life, those
12 types of temperatures can cause them to
13 catastrophically fail.

14 We've also seen recent increases in
15 attempts to compromise the security of our energy
16 facilities and equipment, and we've seen breaches
17 of our cyber security systems and this is
18 demanding the attention of our utility management.

19 We've been working cooperatively with
20 the federal, state and local authorities. We're
21 taking steps to identify and develop -- identify
22 those vulnerabilities, assess the level of risk

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1 that they are inherent in them, and develop plans
2 to address and remedy those potential threats.

3 Taking steps to further achieve the
4 balance requires a significant investment in
5 capital. Municipal bonds are our single most
6 important tool for financing investments
7 necessary, both for economic development and for
8 providing and continuing safe, reliable, secure,
9 affordable, and environmentally responsible energy
10 utility systems.

11 As a result, the single most significant
12 and avoidable risk to either would be a new and
13 unprecedented federal tax on municipal bonds. The
14 threat of such a tax is already a load stone on
15 municipal markets. Every municipal bond issued
16 today includes a warning to investors that such
17 attacks might be levied.

18 Publically owned utilities, including
19 mesas, are limited to how we can finance
20 investments. Mesa, like most other customer-owned
21 utilities, use municipal bonds. These bonds are
22 used to spread the costs of our investments and

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1 infrastructure over time to the customers who
2 experience the benefits of these long-lived
3 assets.

4 The only other realistic funding option
5 is to raise rates. Just as interest paid to
6 Federal bond holders is exempt from state and
7 local taxes, interest paid to municipal bond
8 holders is generally exempt from Federal tax.
9 Because this interest is not taxed at the Federal
10 level, and because municipal bonds are generally
11 an extremely secure investment, bond holders are
12 willing to accept a lower interest rate on these
13 bonds. The lower cost resulting from the lower
14 interest rates directly benefit our owners and our
15 customers.

16 We recommend that DOE urge the
17 President, his Office of Managing and Budget, and
18 the Department of Treasury to abandon their
19 proposal to tax municipal bond interest.

20 We've made continuous progress towards
21 achieving that balance of safety, reliability,
22 economic development despite the challenges posed

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1 by extreme weather events, a weak and erratic
2 economy and uncertainty in the supply markets.
3 Our focus has been on making investments that
4 enhance the safety, reliability, and efficiency of
5 our utility systems. Our system and our employees
6 are much safer. Our system is much more reliable.
7 Our customers experience a lower frequency and
8 shorter duration of service interruptions as a
9 result of our investments.

10 Our systems are much more efficient as
11 well. Our lost and unaccounted for energy had
12 decreased significantly as we have made
13 investments in our system. These investments will
14 benefit our current and future customers for many
15 years.

16 We have taken advantage of our
17 opportunities to invest our infrastructure to make
18 it more reliable and resilient to extreme weather
19 events, but also makes our system more efficient.
20 Our investment decisions are prioritized and based
21 in part on risk assessments that account for the
22 probability of an event and the consequences of an

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1 event.

2 Often, the revenue for a weather event
3 is similar to or compatible with a remedy for a
4 physical security event.

5 Am I running out of town?

6 MODERATOR WELSH: Uh-huh. Can you wrap
7 up?

8 MR. McRAE: Let me just close up.

9 We see opportunities for economies scale
10 and scope. If we integrate our plans to enhance
11 our protections against cyber security threats
12 with the development of our smart grid and micro-
13 grid plans. These remedies and plans are all very
14 capital intensive. The equipment is sophisticated
15 and the expertise to engineer, install, and
16 operate and maintain the equipment is very costly.
17 Initiatives that threaten and increase the risk of
18 whether these investments are likely to be
19 recovered also threaten them ever being made.

20 Thank you.

21 MODERATOR KELLEY: Thanks a lot.

22 Mr. Pillon.

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1 MR. PILLON: The National Association of
2 State Energy Officials appreciates the --

3 MODERATOR WELSH: Can you bring the mic
4 closer?

5 MR. PILLON: -- appreciates the work
6 that Secretary Moniz, Secretary Jewell, Senator
7 Heinrich in support of this Quadrennial Energy
8 Review and this opportunity to share with you some
9 of our concerns with regards to state and local
10 issues.

11 We also appreciate and acknowledge
12 Melanie Kenderdine's work in supporting the
13 Quadrennial Energy Review and the leadership she
14 has provided in support of that effort.

15 NASEO in our 56 states and energy
16 directors and energy advisors have long been
17 concerned about the nation and state's energy
18 infrastructure and the vital role it plays in
19 meeting our energy economic and environmental
20 goals.

21 We have worked with states to help them
22 assess risk, compare, update and exercise state

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1 energy assurance plans. These plans include
2 actions to respond to energy emergencies, as well
3 as actions to minimize energy sector risk.

4 As important, NASEO works with state
5 energy director and governor energy advisors to
6 address forward-looking energy infrastructure
7 policy set by governors and legislators. These
8 policies and programs are distinct from regulatory
9 approaches that are oftentimes somewhat more
10 reactive in nature.

11 They're essential to state's long-term
12 economic development effort in ensuring a
13 resilient, modern, electric, natural gas and fuel
14 system.

15 Quantifying the consequence of both
16 economic (inaudible), vulnerabilities and threats
17 aids in the understanding of energy sector risk
18 and interdependencies. This quantification serves
19 as a key part of the foundation for public-private
20 sector planning and investments needed to reduce
21 risks.

22 When examining vulnerabilities, we must

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1 also consider natural disasters, including those
2 caused by extreme weather, including floods,
3 hurricanes, wildfires, earthquakes, et cetera,
4 failures due to aging and inadequate
5 infrastructure, pandemics that deliver human
6 attacks, both physical and cyber. These events
7 cost billions of dollars of economic losses and
8 risk human life and safety.

9 In many cases, it's far less costly to
10 mitigate these risks than it is to respond,
11 recover, and rebuild following disasters.

12 Many state energy offices include within
13 their broad range of infrastructure transportation
14 demands (inaudible) and policy portfolio energy
15 planning consideration based on the nation's
16 dependence on petroleum.

17 According to the Energy Information
18 Administration, total U.S. energy expenses in 2012
19 were \$1.4 trillion, and spending of petroleum
20 products alone was \$884 billion, or 65 percent of
21 total U.S. spending on energy.

22 The impact petroleum spending must be

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1 considered as one of the important economic risks
2 and vulnerabilities of our system, given the
3 history of price volatility and the global nature
4 of oil markets and pricing.

5 The tremendous shift in our sources of
6 domestic oil and gas supply has created new
7 challenges to adapting the transportation
8 infrastructure, need to move these resources to
9 market and new opportunities.

10 For example, the substantial investments
11 by the private sector to increase pipeline
12 capacity to move Canadian crude oil from the
13 Midwest results in billions of dollars of new
14 investment, increase pipeline capacity and safety,
15 and provides new job opportunities at refineries.

16 NASEO states are very familiar with
17 energy system vulnerabilities, particularly in the
18 fuel sector. For example, the temporary shutdown
19 of the Cochin Pipeline last fall contributed to
20 last-minute propane shortage in the upper Midwest.
21 Some customers were unable to obtain any propane
22 supplies. Other customers only received partial

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1 tank fills, and high prices created a severe
2 economic hardship for both businesses and
3 consumers, and taxpayer funds were needed to aid
4 low income customers in paying their energy bills.

5 Moreover, re-purposing this pipeline
6 means it will not be available to move propane
7 this winter, placing greater reliance and more
8 extensive rail and truck shipments.

9 States have worked to support the
10 National Infrastructure Protection Plan and Energy
11 Assurance Planning activities supported by DOE.
12 We'd be better prepared to respond to energy
13 emergencies and explore policies to improve
14 resilience.

15 Most states engage in some form of
16 strategic planning often led by State Energy
17 Office to examine ways in which they can work with
18 the private sector to achieve an optimal energy
19 future with diversified supplies and increased
20 integration, renewable energy and efficiency.

21 These efforts clearly align themselves
22 with the objective of the QER because states

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1 recognize they are dependent on energy supply
2 chains which is regional, national, and
3 international in nature.

4 The role of State Energy Office is
5 largely focused on policy program driven
6 initiatives working at the direction of governors
7 and legislators and in partnership with other
8 state agencies, Federal Government, and the
9 private sector.

10 By building constructive public-private
11 partnerships, states are improving our nation's
12 critical infrastructure and energy infrastructure.
13 These efforts benefit greatly from the dialogue
14 modeling efforts and initiatives such as the QER
15 and the important analytical planning coordination
16 efforts of DOE's office of electricity delivery
17 and energy reliability.

18 We look forward to continuing the state
19 collaborative work with DOE and the strong support
20 of the Secretary's efforts to improve our energy
21 system reliability, resilience, economic
22 competitiveness and environment to infrastructure

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1 planning and modernization.

2 Thank you.

3 MODERATOR WELSH: Thank you. So we
4 heard a lot of things about the vulnerabilities of
5 a future system: that it needs to be flexible,
6 that we need to have innovation, that we need a
7 skilled workforce, that we need enhanced
8 collaboration and collaborative planning. We also
9 heard about the importance of environmental
10 sustainability in a new energy system.

11 So I wanted to start the discussion,
12 because all of you mentioned the need for that,
13 is how do we balance the need for environmental
14 sustainability and infrastructure to support that
15 with affordability? There are two very competing,
16 yet important goals of a future energy system, and
17 yet one that we've not talked about.

18 So can we balance those twin, but very
19 competing goals? Who'd like to tackle that first?

20 Steve.

21 MR. CATANACH: I think what becomes
22 critical is --

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1 MODERATOR KELLEY: Mic up close.

2 MR. CATANACH: I believe what becomes
3 very critical is understanding what the cost and
4 the consequences of doing nothing are. We
5 recently had a presentation by Dr. Scott Denning
6 from CSU, who is a climatologist, that relay the
7 fact that by 2050, if we do nothing, the weather,
8 the climate in Ft. Collins will be very similar to
9 actually Roswell, New Mexico's.

10 So as we think about that and the cost
11 of having to change how we manage storm water in
12 the community. And I went to school, I'm proud to
13 say, at New Mexico State University here, and I
14 always think about the damn that exists down there
15 that is 70 feet tall, 3 miles long, holds about
16 11,500 acre feet of water, and there's not a drop
17 of water behind it; it's simply there for store
18 management.

19 So when you think about the amount of
20 water that would come off of the Rocky Mountains
21 if we had a much more arid climate and how that
22 has to be managed and what the cost of that is to

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1 a community, it's important to weigh those costs
2 against -- the cost of inaction against the cost
3 of what it's going to take to change how we do
4 business.

5 MODERATOR WELSH: President Shelly.

6 PRESIDENT SHELLY: Yeah. One other
7 thing I'd like to also mention is that we -- the
8 partnership does work. As you know, the Navajo
9 Nation government, the laws are not -- it's really
10 a maintained system where it's a controlled
11 system, the laws are. There's no room for
12 economic development or any other type business
13 with our law.

14 So partnership is the thing that we're
15 doing right now. We have a partnership with
16 workforce area where PNM and Navajo Nation. A \$2
17 million scholarship was provided to San Juan
18 College, also Crown Point Technology College in
19 their college. So in other words, what I'm saying
20 is, we are training our workforce to meet -- these
21 scholarships basically for an energy industrial
22 job, so it may need -- because of all the power

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1 plant that we've got established on our
2 Reservation, we need to continue creating jobs in
3 that area.

4 So the main thrust behind what I'm
5 trying to say here is the workforce.

6 The Navajo Nation does have a lot of
7 workers -- workforce there and training is needed.
8 The partnership is needed. And also the change in
9 our code, in our laws, we're not a constitution
10 government.

11 And the fourth one is the restriction of
12 special government, some of the CFR more
13 controlled to the Indian nation in the area of
14 development. That's how we -- and a tax break
15 too. Tax incentives must be created on the
16 Reservation to make that happen for us too. Thank
17 you.

18 MODERATOR WELSH: Anybody else want to
19 tackle the balance question?

20 MR. McRAE: I'd just like to share my
21 perspective on it.

22 At the City of Mesa, we employ an

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1 integrated resource planning process, which I
2 think puts on a level playing field all of the
3 technical and economically feasible options,
4 whether it's an energy efficiency program, or
5 whether it's a solar panel project, or whether
6 it's a conventional fossil fuel resource. We put
7 all those into our analytical models. We have
8 public outreach programs and get that input. And
9 I think that we get a very good perspective of
10 what our customers and what our City Council wants
11 in terms of that resource mix, that resource
12 portfolio.

13 I think we've achieved a pretty good
14 balance. I think there's more to be accomplished
15 in terms of moderating our greenhouse gas
16 emissions, but we're looking to do it in ways that
17 don't cause any type of significant increase in
18 our cost structure that we have to go and recover
19 from our customers.

20 Our customer base is a very -- the
21 demographics are very low income. And to expect
22 us to comply with a resource portfolio standard

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1 that says we have to have 30 percent of our energy
2 requirements from renewables by a certain point in
3 time, I just don't think that's a good policy
4 direction.

5 So further policy should be based upon
6 sound science and solid economic principles, and
7 certainly pay attention to science when it's
8 available and not ignore it.

9 MR. PILLON: I would add that I believe
10 that there is an opportunity to do all those
11 things beneficial, that you can cut your costs.
12 You can have environmental benefits. When I say
13 "costs," I'm talking about bills, not so much
14 rates. Rates will go up, but bills go down. You
15 do have enough savings.

16 So if you can get economic
17 competitiveness because you've reduced your cost
18 of electricity or natural gas or petroleum
19 products, if you can -- I'm saying time to
20 efficiency, use less that benefits the
21 environment, I believe that these things are not
22 in conflict.

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1 And the other part of the equation
2 that's not often considered is, if you take a look
3 at 2011 to 2012, there are 25 extreme weather
4 events that cost at least a billion dollars worth
5 of damage. \$188 billion in total cost and 1100
6 fatalities. Those are not often considered in the
7 cost equation, and I think we need to.

8 Power outage is every year, according to
9 EPRI's estimates, cost anywhere between 104 and
10 \$160 billion in lost economic productivity. We
11 don't factor that into the equation, and if we
12 did, we would find certain investments to improve
13 resiliency would have substantial benefits to
14 society as a whole.

15 MODERATOR KELLEY: Steve, you wanted to
16 follow up?

17 MR. CATANACH: I wanted to make one
18 correction. I said Ruidoso, New Mexico; I meant
19 Roswell. A little bit drier, but...

20 We did a high-level study that as you
21 take a system approach to looking at not only the
22 changing of the electricity sector, but also the

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1 transportation sector and the cost of our built
2 environment, that did show that overall to the
3 community, even as electrical costs may go up, you
4 can still create economic benefit for your
5 customers. As Mr. Pillon said, you start to bring
6 their bills down through those efficiency programs
7 and through a reduced cost of transportation.

8 So I think what becomes critical is
9 taking that broader look at an entire system, not
10 just one sector.

11 MODERATOR WELSH: Mr. Mertz, did you
12 have a comment?

13 MR. MERTZ: I just wanted to point out
14 that it's important that we consider all of the
15 reliability impacts as we balance this. I mean,
16 that's what we really have to base this all on
17 science and make sure that we can sustain the
18 system in the manner that it needs to be.

19 So I just wanted to point out that it's
20 also a balance, not just of cost, but also
21 considering the impacts -- the potential impacts
22 to reliability as well.

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1 MODERATOR WELSH: So this new energy
2 system of the future, one of the desirable things
3 that we heard from a lot of other speakers is the
4 implementation of new tools and systems that will
5 result in the tsunami of data. And I wondered if
6 you all could talk about data and how data should
7 be considered in this evolution to a new energy
8 system.

9 Anybody want to tackle that?

10 MR. MERTZ: I can start it off.

11 MODERATOR WELSH: Go ahead.

12 MR. MERTZ: From a technology
13 perspective, in reality we can always do things
14 better if we have more data to -- I guess, more
15 data to turn into information. What we have to be
16 careful of is that we are able to take data and
17 turn it into something meaningful.

18 So right now, you know, it was
19 referenced this morning, we put together a great
20 project with the Department of Energy on a storage
21 project here in New Mexico that was one of the
22 first of its kind. The amount of data that comes

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1 from that facility is just staggering. It's
2 really amazing how much information we get from
3 that one facility with solar and storage.

4 And so to really be able to manage that
5 is really what's key about, it's not just about
6 the data; it's about the information. How do we
7 use it? How do we manage that information so that
8 we can use it to its best benefit.

9 So really, it's about -- you know, it's
10 about data on everything from our telemetry, for
11 weather, for example. If we had additional data
12 points along the transmission system for all of
13 the weather inputs, we can better manager the
14 operating limits for our transmission elements,
15 potentially increasing their capabilities as well.

16 So it really -- and it goes from
17 everything to the customer side as well. If the
18 customer had a price signal available to them,
19 they could make better decisions, make better
20 economic decisions based on their usage.

21 So I think there's really data in a
22 number of areas that would really benefit the

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1 energy sector as a whole.

2 MODERATOR WELSH: What about states?

3 What kind of data needs do states look for?

4 MR. PILLON: I think states need a lot
5 more information because the complexity, the
6 overall energy system is growing so dramatically
7 that we need to be able to have the capacity
8 within state governments to be able to look at
9 that and analyze it and understand it correctly so
10 we can make informed decisions for policy
11 purposes.

12 And I think it's very important that we
13 continue to look at tools that will help us, as
14 you say, turn it into information that is valuable
15 to understand the benefits that can be derived and
16 the full scope of, you know, what we're trying to
17 achieve in terms of modernizing overall energy
18 infrastructure.

19 The other piece of that has to do with
20 workforce development, because just like the
21 private sector's seeing a turnover in staff, in
22 state government there's been a considerable

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1 turnover in staff. In the five years I've been
2 working with states in energy assurance planning,
3 I've had some states that have done a wonderful
4 job, and then somebody retires or somebody takes a
5 new job and it's almost back to square one.

6 So how do we sustain that capability to
7 some time of ongoing capacity through training and
8 exercising these kinds of things? And dialogues
9 even like this help educate and inform.

10 MODERATOR WELSH: What about from a
11 municipal perspective? What kind of data needs?

12 Mr. McRae, Mr. Catanach?

13 MR. McRAE: I'll share that I think the
14 data's very important, but how you gather that
15 data, how you store that data, how you retrieve
16 that data, how you keep that data secure, is very
17 important. When we gather customer data, we don't
18 like to share that with outside entities unless we
19 get the approval of that customer to share that
20 data. So how you gather that data, compile it is
21 very important.

22 You have a limited number of access

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1 points, if you will, currently in our system to be
2 able to gather that data. As we look at deploying
3 things like a smart grid and smart meters, we
4 think we're going to be able to get a lot better
5 data. We'll be able to get a much better accurate
6 pinpoint on where an outage is occurring and what
7 may have caused that outage so we can remedy that.

8 The one thing that I would also suggest,
9 though, is that each time you gather data and you
10 create a potential avenue for someone who wants to
11 breach your cyber security has another opportunity
12 to do that.

13 So as we've built our SCADA system, we
14 have made -- a lot of effort has went in to making
15 sure that we have a Chinese wall around our data
16 information system that's separate from the other
17 adjoining utilities, and that protects both them
18 and protects both ourselves.

19 Some of our own facilities, we're
20 building Chinese walls around so that reaching the
21 security of one facility will isolate their access
22 to that facility and not allow them to access

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1 other facilities.

2 MR. CATANACH: From an operational point
3 of view, the City of Ft. Collins was lucky enough
4 to be awarded the Smart Grid Investment Grant from
5 the DOE. And we've recently completed the
6 installation of advanced metering throughout our
7 system.

8 And what we're finding is we now have
9 information how our system is actually operating.
10 Prior to that, we did mathematical models to
11 understand, you know, how our residential
12 customers in particular were using energy.

13 The information we're starting to get
14 has allowed us to feel as if we have the
15 opportunity to be much more proactive rather than
16 reactive. Good example of that is we started
17 getting alarms on our system. Once we mapped that
18 down, we discovered we had a transformer failing.

19 It may sound simple, but the typical
20 event is at the middle of the night on a Friday
21 night, that transformer would go probably during
22 that blizzard or heat event and we'd have to react

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1 to that. Now we could plan it, we could keep the
2 customers informed. It really moves us to being
3 able to provide much better service to our
4 customers by being able to operate our system
5 better.

6 MODERATOR WELSH: President Shelly, how
7 is the Navajo Nation addressing data needs?

8 PRESIDENT SHELLY: Well, when we talk of
9 data, really Navajo Nation's kind of in the back.
10 It's always been left out. Other Indian Nation
11 are in the same boat as we are.

12 But, let me talk about EPA -- U.S. EPA.
13 When they did their BART, we found that hard. As
14 we know, we had two power plants: one in Arizona,
15 the Four Corners, and one in New Mexico --
16 actually, Arizona was in a Navajo generated
17 station and also New Mexico is Four Corner. And
18 we were told that we have limited time to use our
19 coal to burn, and we get a lot of royalty out of
20 that and most of our Navajo workers, five to 600
21 people are employed there.

22 And when the EPA came out with their

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1 data, they were talking about pollution. They
2 were coming in smog, and so on, visibility stuff,
3 they were using that. And we kept telling them
4 that's not from here, it's coming from California,
5 all the (inaudible) that's going on and the
6 pollution going on up there, but they didn't
7 listen. But their data stand and they started
8 working on this BART.

9 And it came down to a BART ruling
10 recently, and again, we told them again, you've
11 got to consider us Indian tribes that are now --
12 some years back, the Government came to us and
13 told us, you got plenty of coal, period, use it to
14 support yourself.

15 And now all at once out of the blue,
16 U.S. EPA came and said you can't burn any of your
17 coal no more. And we kept telling that transition
18 needs to happen. You just can't tell us to stop
19 burning coal and come to a halt; you've got to let
20 us transition to a cleaner technology on coal and
21 that's what we're doing today. But they don't
22 listen. They're still sending out their data.

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1 Again, we're constantly in conflict with
2 the BART ruling that came out recently, but I
3 think they're kind of listening a little bit. I
4 think we've got up to 2044 to change to a cleaner
5 energy, and so I think that's data I would kind of
6 maybe allude to.

7 MODERATOR WELSH: Terrific, thank you.

8 Let's talk about as part of this new
9 energy system, the need for skilled workforce.
10 Many of you have mentioned it here. What can
11 states, local governments and tribes do to ensure
12 that we have a skilled workforce to support this
13 new energy future beyond what San Juan College is
14 doing?

15 You may want to start, Dean, just to
16 talk generally about what are the general needs
17 and how can the representatives of these entities
18 ensure that we have a skilled workforce in the
19 near and the long term?

20 DEAN PACHECO: Thank you very much.

21 And I've given this a tremendous amount
22 of thought. You know, my opening statements, I've

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1 been working for San Juan College now for 12
2 years. And I see my job twofold. One is to move
3 the institution, to develop programs through the
4 energy industry, and the other is really to change
5 lives. To find individuals that are unaware of
6 the energy industry and the opportunities there,
7 because these are great-paying jobs. These are
8 careers. You know, healthcare and 401k.

9 So I think what municipalities and
10 states, what we can do is -- and education, we can
11 start to talk about the energy industry in a
12 positive perspective. You can find a career. You
13 can feed your family. You know, you can afford
14 the home.

15 I think many times counselors, you know,
16 we have a tendency to move our children to the
17 healthcare industry, you know, doctors, nurses,
18 you know, become a lawyer. Rarely do we hear
19 someone outside of the energy industry or outside
20 of a producing basin, whether it's in the San Juan
21 Basin or whether it's the Permian, I think their
22 children are well aware of the fact that, you

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1 know, there's a career.

2 But I would say in Santa Fe and maybe
3 Albuquerque and Taos, are they really aware of the
4 fact that, you know, that there's an opportunity
5 there? And it's just not even traditional fossil
6 fuels, it's also renewable. We don't portray the
7 energy industry as a place to work and to have a
8 career. And I think if we change some of that,
9 that could assist a little bit.

10 MODERATOR WELSH: Terrific. How are
11 municipals approaching their workforce in this
12 field?

13 MR. McRAE: A couple years ago, we
14 started the development of a very focused
15 succession plan. And so basically, there's four
16 tools that we've come up and developed.

17 One is we've greatly enhanced our
18 tuition reimbursement. We are really encouraging
19 our personnel to pursue formal educational
20 advancements. Many of them have been in the field
21 for 10, 15 years. They're reluctant to go back to
22 school, and so we're trying to find support

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1 mechanisms for them.

2 Another tool is what we call leadership
3 development. And the way we develop those
4 leaderships is we encourage them and we incent
5 them to become engaged in community involvement.

6 So our Chamber of Commerce has a
7 leadership development program. We ask our
8 employees to apply for that leadership program,
9 and then we fund their participation fee into that
10 leadership development program. That's one of our
11 ways in which we get involved in the community.

12 Another program is really taking
13 essentially college level courses for those
14 employees who aren't college bound or college
15 prepped, but give them training in areas like
16 strategic planning, accounting and budgeting,
17 project management, et cetera, so that they can
18 get levels of skills to bring them up to the
19 supervisor and the next level of management and
20 supervision without having to go and complete that
21 degree. Working with all the other departments in
22 the city to develop that curriculum, if you will.

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1 The fourth area is coming up with
2 special projects, or what we call management
3 development programs. So if there's a project or
4 a concept that's been sitting around for a while
5 and our management team just does not have the
6 time and resources with which to focus on those
7 projects, but now we find that we're in a
8 situation where the time is right to develop and
9 pursue that project, then we assemble a team of
10 participants in the succession plan, appoint a
11 leader, appoint a project sponsor and they go and
12 pursue the development of that project.

13 So that's how we were able to recently
14 procure three mobile emergency generators. These
15 generators were speced out and gone through the
16 acquisition procurement process, start-up and
17 testing process. They're now able to be
18 essentially a plug and play at about ten different
19 municipal government locations to be able to
20 provide power during interruptions in service that
21 we think are going to be extended.

22 So that's how we've gone about it.

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1 The other thing that we see as a real
2 source of personnel is Veterans. As I think we
3 all have heard, Veterans are having difficulties
4 and challenges coming out of the Service and
5 finding meaningful work. We're really trying to
6 focus on finding those Veterans, but we're having
7 a very difficult time finding the Veterans that
8 want to come to work in the utility industry.

9 And so if there's a program that can
10 help us reconcile what the Vets are looking for
11 and what we're looking for in future employees,
12 that would be a great benefit.

13 MODERATOR WELSH: Thank you.

14 MR. CARANACH: Our programs are very
15 similar to those with the City of Mesa. We also
16 have freed up budgeting to allow us to double hire
17 some positions in order to pass on that knowledge
18 as we transition out. You know, as an example, I
19 have somebody with 45 years of experience that is
20 retiring at the end of the month, and I've already
21 hired from within his replacement. So it provides
22 that opportunity to share that internal knowledge.

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1 MODERATOR WELSH: President Shelly, how
2 is the Nation addressing your skilled workforce
3 needs?

4 PRESIDENT SHELLY: Well, let me tell you
5 about the workforce. We -- what happens in most
6 cases that -- what the Navajo Nation, the way
7 their flow of funding is it goes to the state, and
8 the workforce budget money goes to the state and
9 then it comes to us.

10 And we kind of get the budget kind of
11 late, so we can't use it all up in most cases. So
12 what I'm asking for right now is direct funding.
13 Direct funding through maybe a trustee like the
14 BIA to go through and then straight to us, then
15 we'll have plenty of time to train our workforce
16 to whatever they want to be.

17 And like I said earlier, we had the
18 workforce; it's the training part. We always get
19 the short end of the stick on all Government, so
20 we're right now saying direct funding's the best
21 way to go, and that way we can benefit to the
22 fullest of what their budget's going to be used.

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1 And we are engaged with the University
2 of New Mexico in areas of workforce to train our
3 Navajos into all areas of trade. Truck drivers,
4 operating heavy equipment, nurses, doctors, and so
5 on, even that far, interim-wise. We just are now
6 to get the best training we can get to our Navajo
7 people. And that's what we're doing with our
8 workforce.

9 MODERATOR WELSH: Thank you.

10 Jeff, can you represent state
11 approaches? Are the energy offices involved in
12 that at all?

13 MR. PILLON: Yeah. There's a number of
14 state energy offices that do engage in energy
15 education where they've done outreach to
16 elementary and even secondary education to inform
17 students at that level of the importance of energy
18 and things that they can do and how it works so
19 there's a basic fundamental understanding. I
20 think that's beneficial.

21 In terms of state workforces, the
22 National Association of Regulatory Utility

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1 Commission has their two-week summer camp at
2 Michigan State, and I would be lecturing there at
3 the end of the week on resiliency and energy
4 efficiency and energy assurance. NASEO has an
5 online interactive training course that we have
6 and the fundamentals of energy assurance. We
7 reach out to approaches such as that.

8 And there's a lot of programs that reach
9 out to consumers. And consumers are also workers.
10 And sometimes what you do in your home, you've got
11 to maybe take to your business because you put in
12 a new thermostat or new controllable thermostat,
13 you'd say, well, this is really neat. Maybe I
14 should do this, you know, in my office and people
15 bring ideas around that as well. So I think a lot
16 of the outreach that energy offices do on an
17 energy efficiency opportunity sometimes do carry
18 over into the workplace as well.

19 MODERATOR WELSH: Thank you.

20 And I don't want to ignore the utility
21 industry, the IOU, so Mr. Mertz.

22 MR. MERTZ: I appreciate it.

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1 MODERATOR WELSH: What is that industry
2 doing?

3 MR. MERTZ: You know, we're certainly in
4 a situation, it was already mentioned that we're
5 certainly not immune to the retirement eligible
6 resources. At our company, you know, we've got a
7 substantial number of folks that are eligible for
8 retirement, and we've got the experience that is,
9 you know, two ends of the spectrum. A lot of
10 folks that have been around the industry for
11 decades and a lot of folks that are brand new. So
12 meeting that middle ground is one of the biggest
13 challenges from a utility perspective.

14 But I think what it boils down to that
15 we've talked about is partnership. You know, we
16 have partnerships in place today with San Juan
17 College, with the Navajo Nation to train on
18 emerging systems and what they look like in the
19 future.

20 Even our folks at PNM Resources, we
21 utilize the Department of Energy. Some of our
22 folks go through control system security training

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1 through the National SCADA Test Bed through the
2 Department of Energy.

3 Those are things that we couldn't do by
4 ourselves as an electric utility, but we need to
5 rely on the resources that are already out there
6 and capable of providing the training that we need
7 to get people that can literally hit the ground
8 running in positions from everything from craft to
9 engineering. I mean, we've got the whole
10 spectrum. To office support, functions,
11 accounting, we've got needs.

12 So we need to make sure we've got the
13 programs and resources in place that are best
14 positioned to do that, and it involves a lot of
15 collaboration with local universities, community
16 colleges, local communities, as well as other
17 government agencies that are out there already
18 offering a tremendous amount of training for these
19 folks.

20 MODERATOR WELSH: Great. So we're
21 running out of time. I'm going to ask you a two-
22 part question.

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1 If you had the ability to talk to
2 Secretary Moniz and Secretary Jewell, what would
3 be the one specific recommendation you would tell
4 them that the QER should include as an action item
5 in this first year's QER report?

6 And then the second part is, if you have
7 any other final thoughts, due to time limits, I'm
8 going to combine those two questions and give you
9 all the chance to provide one specific
10 recommendation and two final thoughts.

11 President Shelly, start us off.

12 PRESIDENT SHELLY: Okay. For Secretary
13 Jewell, the Energy Office they're talking about,
14 the Department of Interior, you need to happen.
15 It needs to also -- a general leasing act that we
16 passed as the Nation, that needs to adhere to so
17 we have a little bit more control of our land to
18 develop.

19 And the last one, I would like to ask
20 again, Secretary Jewell, I did ask her in Phoenix,
21 but I have heard nothing on it. We -- I know
22 Government are not experts in energy, and there

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1 never is. They're just a lot of red tape that
2 they go through.

3 But let me say this again to Secretary
4 Jewell. I did say it over again and again, I do
5 see the Department of Energy sitting in here,
6 again, I would like to request full funding for
7 our partner, which is Sandia Laboratory. That I
8 want to get them some money so that they are ready
9 -- they have a group. There are -- we consider
10 them as our partner, and we have an MOU with them.
11 They're our energy expert. They advise us what we
12 need to do on our Reservation. The Lawrence
13 Livermore, they're combined with those two groups.
14 They are professional. Again, they are requesting
15 for funding to get this group together to put a
16 roadmap for the Nation, for any developer that
17 wants to the Nation, the roadmap will be there for
18 them what they want to get involved with the
19 Nation with, with the national resource.

20 Again, let me request for that to make
21 that happen. That's all I ask. They're a
22 recognized organization. They are being funded by

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1 Federal dollars right now. Just ask them to get
2 that done so we can go on with our energy
3 building. Thank you.

4 MODERATOR WELSH: Thank you.

5 Dean Pacheco.

6 DEAN PACHECO: Yes. Thank you very
7 much. And, I guess, you know, my statements would
8 go back again to the qualified workforce. I think
9 that as we strategically look at the supply and
10 demand of energy in this country, strategic to
11 meeting those goals will be the workforce.

12 It's estimated that 2.5 million jobs
13 will be available in 2015 in the energy industry.
14 I graduate about 150 students a year, so, you
15 know, we need a lot of help and I think this
16 country needs to pay very close attention to the
17 next generation and who's going to deliver and
18 create power for this country.

19 Thank you.

20 MODERATOR WELSH: Thank you.

21 Steve.

22 MR. CATANACH: Certainly, as I look to

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1 what the assistance that DOE can provide, they
2 bring a tremendous amount of knowledge and skill
3 through the labs, through their research. And as
4 we look at not just the new energy systems, but
5 what our entire community should be doing to make
6 long-term plans for the future, addressing
7 resiliency as we see a change coming.

8 I think that the DOE, the labs provide
9 that knowledge base and can help us do modeling,
10 help us do long-range planning in order to assure
11 that we're headed down the right path.

12 MODERATOR WELSH: Terrific.

13 Mr. Mertz.

14 MR. MERTZ: Sure. I'd say one of the
15 main items that would come up would be a
16 clarification of the roles and responsibilities of
17 the Federal Government when it comes to protecting
18 critical infrastructure.

19 You know, the private sector is
20 shouldered with, as I mentioned, protecting our
21 systems and assets from threats that are on the
22 other side of the planet from the convenience of a

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1 basement 2,000 miles away. In the cyber
2 landscape, it's just not the same as the physical
3 landscape.

4 So really, the private sector, as I
5 would say the equivalent of it is that we have to
6 develop our own equivalent of missile defense
7 systems for our grid, because really at the end of
8 the day, we're shouldered with the responsibility
9 to protect our systems from those, you know,
10 coordinated criminals that are out there.

11 You know, the bad guys don't have the
12 same constraints to money that we do to protect
13 our systems, and they don't have the same
14 constraints for time, necessarily.

15 So, you know, they can do these things
16 that are really complex, sophisticated attacks,
17 but I think we just really need to increase our
18 understanding of what can or can't the Federal
19 Government do to help so that we're not, you know
20 shouldering our customers with some of those costs
21 that may not need to be born if we've already got
22 the capability at the Government level.

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1 MODERATOR WELSH: Terrific, thank you.

2 Mr. McRae.

3 MR. McRAE: I'd emphasize the importance
4 of recognizing that utilities are a very capital-
5 intensive industry. And most of the solutions
6 that we talk about, whether it's addressing
7 climate change or cyber security threats or
8 physical security threats, are very capital-
9 intensive, high initial capital costs. And so any
10 initiatives or policies that threaten how those
11 costs are recovered and spread amongst customers
12 is going to impede that investment.

13 So if there's a policy initiative such
14 as retail competition where certain customers are
15 allowed to avoid paying their fair share of those
16 costs, then that's something that really out to be
17 avoided. That's going to impede investment.

18 In terms of the two points, we're an
19 important part -- utilities are an important part
20 of the nation's health, the economic health, the
21 strength of our security. We play a very
22 prominent role when it comes to local emergencies

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1 and emergency first response.

2 And then the other thing is, I would ask
3 him to look again at another wave of funding
4 innovative technical partnerships, such as the
5 Smart Grid Program that Ft. Collins was able to
6 participate in. We applied for a grant, weren't
7 selected. So I think we're ready to entertain
8 those types of partnership opportunities again,
9 and hopefully be selected as a participant.

10 MR. PILLON: The thing I'd say to the
11 Secretary is that it's important that in this
12 Quadrennial Energy Review that they take a
13 comprehensive, strategic look at all energy
14 resources across all sector. Presidential Policy
15 Directive 21 did ask the Departments to take a
16 look at the interdependency that exists. There's
17 a lot of interdependencies within the energy
18 sector, and also with other sectors as well. And
19 I think that landscape has to be understood so
20 that we don't solve a problem in one sector just
21 to create a problem in another sector.

22 And we've seen that over and over again.

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1 The shortages of (inaudible) oil in the Northeast
2 were partially compounded by the natural gas
3 curtailments that occurred there last winter.

4 So I think we need to take a look in a
5 comprehensive way to cover all threats and
6 vulnerabilities that are out there in terms of
7 that type of analysis.

8 And I think in terms of kind of the
9 important points, as we move to more technology-
10 based innovation, the cyber threat grows. And it
11 is evolving -- it is an evolving threat, very
12 rapidly evolving threat, and it's very difficult
13 to keep on top of that threat. And I think it's
14 got to be the role of both private sector and
15 public sector to address it. You know, a cyber
16 security in the private sector versus what we can
17 hire them in state government for is a little bit
18 different, you know, kind of thing. So, you know,
19 I think we all have to work on together on that in
20 a partnership forum to do the best we can.

21 There's some good models of that.
22 NASEO's got a project underway to profile a couple

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1 of states. Michigan's doing some pretty
2 innovative things. And Governor Snyder, having
3 worked with the president of Gateway computers, is
4 sensitive and this is a high priority for them, so
5 they're doing some innovative things, which hope
6 to share some of those lessons learned that are
7 evolving to the state level and I think can be
8 beneficial for the Department to also be aware of.

9 MODERATOR WELSH: Thank you. I would
10 recommend that NASEO consider submitting that
11 report or that case study --

12 MR. PILLON: We will.

13 MODERATOR WELSH: -- to the QER. The
14 QER really is looking at all of the comments.

15 So we --

16 PRESIDENT SHELLY: One last one. One
17 minute, if we have time. Okay.

18 All the Navajo Nation wants and its
19 people is to have jobs. As you know, we talk
20 about deficit, growth of population. We are
21 growing. And pretty soon, the Federal Government
22 may not afford us, so we need to get on with

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1 creating business and develop and creating jobs so
2 that we start doing our share and paying our
3 taxes, and that's all I want to say.

4 And I just want to say to the Federal
5 Government, get off our ass, please. Thank you.

6 MODERATOR WELSH: Well, what that,
7 please join me in giving this stellar group a big
8 round of applause.

9 (Applause.)

10 MODERATOR WELSH: We'll now prepare for
11 the open mic session, so please give us just a
12 moment.

13 (Pause.)

14 MODERATOR WELSH: Let me get everyone's
15 attention again.

16 Before I get to the open mic session, I
17 do want to make a comment that I should have made
18 at the beginning of this meeting. And that is to
19 A, thank all of our panelists, but to point out
20 that the views expressed by all the panelists
21 today were their own views and not the views of
22 the Department of Energy or Interior, and we

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1 appreciate everyone coming.

2 So now we are at the open mic session.

3 And this is the opportunity for people who have
4 signed up in advance to make comments. We have
5 two distinguished representatives for the
6 Department of Energy here on stage. Others of us
7 have been in the audience and will continue to be
8 here all day.

9 I'd like to introduce Kate Marks, who's
10 a Senior Advisor in the Office of Energy Policy
11 and Systems Analysis on the QER team. And John
12 Richards, also Senior Advisor in the office of
13 DOE's Office of Energy Policy and Systems Analysis
14 on the QER Team.

15 So they will be part of the team that is
16 putting the first report together, and they are
17 also the ones responsible for putting together
18 these highly successful public meetings.

19 So I'm going to go in order of when
20 people signed in. It looks like we have several
21 people who wish to speak. We're not sure if all
22 of them stayed.

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1 But our first public speaker is Michael
2 Curtis. Mr. Curtis, you have five minutes to
3 summarize your comments, and if you'll watch the
4 clock, we'd appreciate it.

5 MR. CLARK: Thank you, Ms. Welsh.

6 First of all, I want to say that the
7 Arizona Power Municipal Users Association created
8 in early 1950's and represents cities and towns,
9 rural electric cooperatives, generation
10 transmission, and serves approximately a million
11 more people than Arizona.

12 Your comment, as well as the panels, was
13 addressed to the balancing concept. I'd like to
14 point out that balancing is a survival. As
15 (inaudible) said, you know, in the long run,
16 what's wonderful is that we're all dead. In the
17 short front, we've got people who are retired, on
18 fixed incomes, and therefore, your balancing
19 concept is very important.

20 It's important then that you develop a
21 national policy and think in terms of what we do
22 to earn income tax credits. We need to establish

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1 perhaps a taxing policy or crediting policy that
2 does allow elderly, fixed income, minorities, and
3 people impoverished needs to participate in the
4 transformation into a new energy society, but not
5 all over their dead bodies and not on their backs
6 and not at risk to their health.

7 Also, the Western Area Power
8 Administration here in our area, there are certain
9 13 or 14 western states, extraordinarily important
10 entity; however, it has regionally developed
11 individual facts, it's cost-based and we very much
12 support maintaining the cost base structure of
13 that entity in its Congressional mandates and
14 guidelines. We do not want to see those
15 Congressional mandates and guidelines extrapolated
16 into something that is not Congressionally
17 mandated.

18 The infrastructure program has been
19 discussed here earlier needs grants, and several
20 people have commented on that. Our association
21 really does support the necessary appropriations
22 and funding for grants for some of the individual

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1 programs.

2 Joint ventures are extremely important.

3 Those have been mentioned earlier. Secretaries

4 both have mentioned the public-private

5 partnerships. We're very much in favor of that.

6 But we're also in favor of seeing

7 entities, such as the Western Area Power

8 Administration, outsource some of the tasks that

9 have to be done; thereby, reducing their need for
10 appropriations, but also at the same time,

11 allowing public and private enterprises to

12 participate in building infrastructure and

13 improvements where necessary.

14 We had (inaudible) fire eight or nine

15 years ago, 500,000 acres, and the CO2 production

16 was basically the equivalent of four or five years

17 of combined CO2 output, every single CO2 producer

18 in the United States. So part of wise management

19 is to take a look at our forestry program. Let's

20 go a little beyond just what we're talking with

21 these people here today. Let's look at

22 accelerated things like forest spinning, which

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1 increases runoff, and at the same time, reduces
2 forest fires because forest fires produce CO2 as
3 well.

4 And I want to thank you for the
5 opportunity to comment. Appreciate your efforts.

6 MODERATOR WELSH: Thank you. And we
7 hope you'll also submit written comments on behalf
8 of your association.

9 Our next speaker is Dave Neal.

10 MR. NEAL: I can't see the -- oh, there
11 it is.

12 Okay. I'll speak from here. I'm sure
13 you guys can hear me with or without the mic.

14 I represent a small non-profit
15 organization in northern New Mexico, and we're
16 trying to unify the community with some of the
17 issues that are facing us right now and the guys
18 on the stage and everybody in this room, we're
19 paying our electric bill.

20 So let me tell you what's going on. I'm
21 targeting most specifically CFR 25169 Section 12,
22 which talks about grant right-of-ways over tribal

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1 lands. I have in front of me a current case
2 before the PRC here in New Mexico where we have a
3 variance of close to 3,000 percent per acre of
4 right-of-way in terms of what the Native Americans
5 are charging small cooperatives in northern New
6 Mexico to cross their lands with transmission and
7 service lines.

8 The key to this whole problem is you
9 look at Section 12, there's no cap on what can be
10 charged. You can't charge less than the fair
11 market value, but there is no cap on the other end
12 of it.

13 So what has happened is some of the
14 tribal entities -- and I'm not disagreeing they
15 should do this -- some of the tribal entities are
16 using that to generate revenue, which is taking
17 away from the infrastructure of the electrical
18 coops because they've got to spend money
19 (inaudible) money on right-of-way costs. So the
20 end result is, our deal goes up, we don't see any
21 change in real liability, and we're wondering what
22 can be done to fix that.

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1 So thanks to DOI -- and I thank you very
2 much -- there's an open case right now to review
3 this particular part of the CFR. We're going to
4 submit comments, but all we're really asking for
5 is at least some cap on the right-of-way policy
6 could be placed on these transmission and service
7 lines. And this is a real, honest to God ongoing
8 thing right now. We can fix this problem and
9 start putting money into our real coop because our
10 coop right now is having a heck of a time just
11 putting in automatic re-heaters.

12 Am I still okay? Yeah, there we go.

13 MODERATOR WELSH: I'll let you know.

14 MR. NEAL: Okay, thank you.

15 So the reason I'm here is we're not
16 interested in trying to take money away from the
17 tribal entities, we're not interested in trying to
18 make money; we're interested in a balanced
19 approach to how we negotiate these right-of-ways,
20 because the tribal entities need the funds as I
21 was listening to the Navajo President, they need
22 the money to train their kids and everything. I

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1 got that. So -- but we've got to have a balanced
2 approach. And right now we don't have it. And
3 that's why we are open for discussions right now
4 or for review (inaudible) is actually open because
5 they want us to streamline it, which is kind of
6 cool, but in the meantime, they ought try capping
7 that.

8 And there's one other thing I had to
9 mention her.

10 Yeah, the only thing I was going to say
11 is we're kind of rural a little. I hate to say
12 this, but we're developing right now, so we have
13 an opportunity right now to actually get in there
14 and help some of these electrical coops.

15 About four years ago, I think, we had a
16 6-hour power outage -- 6-hour power outage from
17 our coop because they couldn't maintain their
18 transformer bay. They came in from Tri-State,
19 which receives -- provides power. Why wouldn't
20 they maintain the power for the transformer bay?
21 Didn't have enough money.

22 And so now you kind of look back on that

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1 and you say, well, where's the reliability issue?
2 They can't even keep their computers running, much
3 less keep the power coming down from Tri-State to
4 service their customers.

5 So I'm targeting most of these comments
6 to the lady from DOI because that's obviously the
7 BIA folks, but that's what we're really after.
8 And again, this is a case that we've got right now
9 before the PRC and they don't know what to do
10 because they can't just approve it because there's
11 no requirement for an appraisal. The tribal
12 entity can charge whatever they feel is correct.
13 And without that appraisal, one -- excuse me -- a
14 quick example and I'll be done.

15 One tribe came in at \$969 per acre for a
16 right-of-way. Now, take that and compare it to
17 \$3,211 for a tribe that was right next door to
18 that same tribe for one acre of right-of-way.
19 You're looking at \$1,000 versus \$3,000 and there
20 was -- the \$1,000 one was done based on a fair
21 market assessment. The other tribal entity
22 decided to charge what they want, and they were

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1 allowed to do it.

2 Thank you very much.

3 MODERATOR WELSH: Thank you.

4 Our next speaker is Tom Singer.

5 MR. SINGER: Thank you very much. My
6 name's Tom Singer and I'm the senior policy
7 adviser with Western Environmental Law Center, and
8 I'm here representing nearly 100 national,
9 regional, and local environmental public health
10 and faith based organizations that have written to
11 Secretary Jewell calling stronger controls on
12 methane bending and flaring from oil and gas
13 infrastructure on public lands.

14 THE REPORTER: Mr. Singer, can you speak
15 up, please?

16 MR. SINGER: I'm sorry. Is the mic on?

17 THE REPORTER: Yeah, but you need to get
18 it right up to you.

19 MR. SINGER: I want to emphasize for the
20 Quadrennial Energy Review, the need for the
21 Department of Interior to continue moving forward
22 and complete its update of the Bureau of Land

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1 Management's methane waste rule before the end of
2 this year. Reducing methane emissions is a key
3 part of President Obama's Climate Action Plan and
4 the Administration's strategy to reduce methane
5 emissions, which I believe is (inaudible).

6 Secretary Jewell spoke earlier today of
7 the need for energy development to move from
8 random acts to strategic goals.

9 An updated methane goal can help
10 accomplish this by establishing strong oil and gas
11 infrastructure planning requirements for BLM field
12 offices and methane capture requirements for
13 industry.

14 While advances in methane regulation by
15 the state has been a focus of public discussion, a
16 strong (inaudible) methane rule will leave a
17 significant reduction in greenhouse gas emissions,
18 will ensure that more of this resource will reach
19 consumers and the service and model for states on
20 best practices to rationalize oil and gas
21 development and reduce methane waste.

22 We encourage Secretary Jewell and the

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1 Quadrennial Energy Review to make this rulemaking
2 a high priority and get a strong rule in place.

3 Thank you very much.

4 MODERATOR WELSH: Thank you.

5 Our next speaker is Joe Garcia.

6 MR. GARCIA: Good morning. Thank you
7 very much for the time. My name is Joe Garcia. I
8 come from Ohkay Owingeh. I'm the head councilman,
9 former governor (inaudible).

10 I've got some suggestions, but first I'd
11 like to ask some questions, and I think the
12 questions, if they're answered properly, might
13 lead to some better solutions overall.

14 Who owns the grid? Who owns the power
15 and energy that they're generating? Who owns the
16 land that it sits on? Who has jurisdiction over
17 those lands?

18 And so the solutions are going to be
19 multifaceted, just as the scenario becomes
20 multifaceted. And so depending on where you're
21 located, who owns the energy that's been generated
22 and where it's generated.

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1 But today's session has mostly been
2 about commercial development of energy. There
3 wasn't a whole lot of discussions about community-
4 need based energy development, and I think there's
5 a whole lot of that opportunity that are
6 available. And so we talk about that later on, it
7 might be a good thing.

8 All stakeholders should be involved in
9 any solution that are promoted or that are
10 recommended. And in the past, it's not been the
11 case. And I will cite something that happened in
12 New Mexico.

13 Over the course of the years, the right-
14 of-ways that were signed by developers or energy
15 providers, some have been nonprofit, some have
16 been for profit, but be that as it may, the tribe
17 has really not been involved in it. All they've
18 done is they sign right-of-way agreements and from
19 what I remember, a lot of these agreements are for
20 dollar for time -- for perpetuity for use of the
21 land. One dollar.

22 And so I think that that's an important

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1 consideration because a lot of those, those were
2 not in perpetuity are being -- the time's already
3 up. And so I think new renewal will be made, and
4 so it's important to understand what is involved
5 in signing the right-of-way and what new
6 restriction and what authority does a tribe have.

7 And so I think if the understanding is
8 all around, then it leads to better solutions.

9 But by the same token, that's why I say, all
10 stakeholders should be involved in providing the
11 solutions.

12 Now, the upgrades we know are now
13 needed. Now, if you just upgrade the system for
14 the current use at the levels of current use, it's
15 one way for providing solution. But if you add on
16 top of that new usage, new users, other improved
17 efforts in what the capabilities of that
18 infrastructure are provided. For instance, you've
19 got to find a smart grid, you've got to add to the
20 smart grid, you've got to know where the energy's
21 coming from. You've got to know what levels the
22 loads are and what inputs, how much energy are you

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1 going to feed back into the system. All those
2 factors are important considerations. You don't
3 know that unless you take the time to involve all
4 of the other people.

5 As far as nationwide, I think the same
6 efforts are solutions. And I know in New Mexico,
7 every piece of infrastructure that exists in the
8 state, at some point in time runs through tribal
9 lands.

10 PNM infrastructure. (Inaudible)
11 infrastructure. Tri-State infrastructure. All of
12 those exist on tribal lands and the tribes, as I
13 said, has not been involved in.

14 It's not that we don't want to be
15 involved, we're tried, we've tried, we've
16 complained, we try to do other things. But I
17 think now we're to the point where we are
18 technically savvy. And so we'd like to also
19 provide what we can to the efforts of solutions,
20 not just for us because the energy use for that
21 infrastructure is not just for the tribe; it's for
22 our brothers and sisters, our men, our friends and

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1 neighbors all over the country.

2 And when you spread that scenario all
3 across the land, you'll see that it exists in
4 other regions with other tribes within the United
5 States of America. So all in all, I think those
6 kinds of efforts are important.

7 But I leave you with one last thought,
8 that I hope that this session is a recommendation
9 -- an input session, but I hope it doesn't just
10 end there. We need to follow up with follow-up
11 discussions, recommendations, and then we need to
12 have input back and that leads to hopefully just
13 consultations, but to other discussions so other
14 forums will provide better discussion.

15 MODERATOR WELSH: Thank you.

16 Our next speaker is Darien Cabral. Did
17 I pronounce your name right? Darien Cabral.

18 Terry Avila (ph). Agilla (ph)?

19 Roger Fergual (ph) -- Fergwon (ph)?

20 I'm sorry if I did not pronounce these
21 names correctly. No?

22 Last name, Xubi Wilson. Actually, it's

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1 not the last one, but Mr. Wilson.

2 MR. WILSON: My name is Xubi Wilson and
3 I'm coordinator for (inaudible) Energy Programs at
4 Santa Fe Community College.

5 And I would like to say that although
6 much of what I said represents the sentiments of
7 the college, I'm not speaking as a representative
8 of the college today. (Inaudible.)

9 THE REPORTER: You need to -- yeah,
10 project into the microphone.

11 MR. WILSON: Okay, I can do that.

12 A lot of what I'm hearing today is about
13 managing (inaudible) energy systems, and we're
14 doing a Quadrennial Energy Review, which I hope is
15 part of a, not only just reviewing what we're
16 doing over the next four years, but a 4-year
17 review -- a longer term policy and planning.

18 We need to look towards a (inaudible)
19 long-term and resilient future and what we're
20 going to do in terms of that energy, not only for
21 the economy, but for the survival of people all
22 across the United States.

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1 I was recently at New Mexico Speaks
2 Energy Planning Meetings. And it was a little bit
3 disturbing that our Secretary of Energy announced
4 that our previous energy plan was built almost
5 entirely on renewable energies and conservation,
6 and he said you can all see how misguided that was
7 now. Misguided. I don't think anybody believes
8 that fossil fuels are an unlimited source of fuel.
9 They will (inaudible) burn out at some point. And
10 so our long-term plan has to be for what we do to
11 transition away from existing fossil fuels.

12 I think the past hundred years, we have
13 had energy policies from arrogance to ignorance.
14 It's only our -- our arrogance was only outdone by
15 our ignorance.

16 We're now in a situation where the veil
17 of our ignorance has been lifted. We know that.
18 We know about future energy supplies. We know
19 (inaudible) very big, eventually we do run out of
20 these fossil fuels.

21 What we do now as we develop further
22 technology, is I think this the sentiment that our

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1 Energy Secretary with best inventions was we
2 develop technologies to express more of these
3 fossil fuels out of the ground and use them more
4 quickly.

5 What I'd like to suggest is, that as we
6 do that, we're not creating new fuel, it's just
7 the rate at which we conceal these potential fuels
8 for future generations. And so (inaudible) really
9 about how can we take the resources that could be
10 for future generations and use them all up within
11 our lifetime? And I think that would be a
12 catastrophic mistake. (Inaudible) not just the
13 bottom line, both job development for the next 5,
14 10, or even 20 years, plan for a resilient,
15 sustainable future for our economy and for our
16 energy future.

17 I think it's critical that we pull our
18 head out of the past and look not just at
19 transmission and new fuel lines, but distributing
20 generation, distributing sources, and not so much
21 rely on centralized generation.

22 And I know that sounds a little bit out

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1 there, but that is the state and policy of our
2 department expects. They recognize the critical
3 nature of having globalized generation, of having
4 resiliency and having reliance on renewable energy
5 sources.

6 To think about the future, a 7-year-old
7 sitting on their grandfather's lap saying, why did
8 they take all of those valuable hydrocarbons and
9 burn them? I says I don't know (inaudible), I
10 don't know. I hope that we don't end up in that
11 day. I hope that we can really focus now on
12 planning towards the future so we can create 2015,
13 3015, 4015, a situation where we took the abundant
14 energy reserves we had today and invested them in
15 creating opportunities, resiliency, and
16 possibilities for future generations.

17 I thank you all for coming out here
18 today and I'm looking forward to the future
19 meetings of this group and how we move forward.
20 But I think it is very critical not to that we
21 just learn on how to manage our current energy
22 infrastructure and our way about -- of going about

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1 things. We show some leadership in creating a
2 transformation towards something that we know,
3 while it may last our lifetime's, it may last our
4 children's lifetimes. We know that there comes an
5 end game for this. We have to create something
6 different to create opportunities for the future.

7 MODERATOR WELSH: Thank you.

8 Just to make a point of clarification,
9 this Quadrennial Energy Review is addressing
10 systems out to 2030.

11 Okay. Our next speaker is Commissioner
12 Valeria Espinoza.

13 COMMISSIONER ESPINOZA: Thank you.
14 Thank you for the introduction.

15 I really don't have too many comments
16 other than to say that I would certainly like to
17 participate in future meetings. Believe or not, I
18 just got wind from David here and Governor
19 Martinez's that this meeting was being help. As I
20 work on issues of infrastructure and also the
21 (inaudible) wildfire task force and I know you
22 brought up the subject of the wildfires earlier.

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1 Also, I'm trying to get gas lines
2 extended into the rural areas of District 3 that I
3 represent, and so the topics of easements and PNM,
4 I'm not sure if there was a representative here
5 from New Mexico Gas toady, but I also represent
6 the district in which there were rolling blackouts
7 several years ago.

8 So I think that I can contribute to this
9 committee here, if you could please in the future
10 be sure that I get invited. Thank you so much.
11 And thank you for having this meeting.

12 MODERATOR WELSH: And, Commissioner,
13 please know that we really do want to hear your
14 recommendations, so we encourage you to submit
15 something in writing, either with your fellow
16 Commissioners or on your own.

17 So we have two maybes who were not sure
18 whether they wanted to speak when they signed in,
19 but let me try and give them the opportunity.

20 Alice Lucero.

21 UNIDENTIFIED SPEAKER: She left.

22 MODERATOR KELLEY: And Seneca Scott have

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1 both left.

2 So let me turn the mic over now to Ms.
3 Marks to give some concluding comments and
4 appreciate it. Ms. Marks.

5 MS. MARKS: Thank you, Peggy, and thanks
6 to all of you for being here today.

7 We'd also like to thank our hosts, the
8 State Personnel Office, as well as the Governor's
9 Office. Governor Martinez and her staff were very
10 helpful in putting together this meeting today and
11 supporting this event.

12 We do welcome additional comments that
13 you might have on this meeting, other meetings,
14 and the QER overall via QERcomments@hq.doe.gov.

15 You can also go to our website at
16 www.energy.gov/QER to see all the presentations,
17 the live video, and the meeting summaries from
18 this event and all of the events that have been
19 held so far and the events that we'll do in the
20 future.

21 We do have two upcoming meetings. The
22 next meeting is August 21st in Cheyenne, Wyoming

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1 on Infrastructure Siting. In September, we'll
2 hold an event in Newark, New Jersey on Electricity
3 in the East.

4 And with that, we'd like to conclude
5 this meeting. Thank you all again for coming.

6 MODERATOR WELSH: Thank you.

7 (Whereupon, the meeting was concluded
8 at 1:29 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 Roger Meyers

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CERTIFICATE OF TRANSCRIPTION

I, VALORI WEBER, hereby certify that I have typed the transcript of this proceeding using the Court Reporter's notes and recordings. The foregoing/attached transcript is a true, correct, and complete transcription of said proceeding.

August 26, 2014

VALORI WEBER
Transcriptionist

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