Summary of Presentations and Comments
At the
Quadrennial Energy Review

Stakeholder Meeting #8: Bismarck, ND
Infrastructure Constraints
August 8, 2014

Opening Remarks

Matt McGovern, Special Advisor, Office of Energy Policy and Systems Analysis, U.S. Department of Energy

Main points:

1. The Quadrennial Energy Review (QER) is one of the most important initiatives out of the White House. The first year of the QER will focus on transmission, storage and distribution infrastructure and the network that links energy supplies to intermediate and end users.
2. The QER will develop strategic documents with recommendations for the 21st Century energy challenges and identify recommendations for policy in all aspects of energy.
3. I lived in South Dakota in the last decade and coming to North Dakota is almost like coming back home. I am honored to introduce Senator Heidi Heitkamp, the first female Senator elected from North Dakota. Senator Heitkamp is a former director of a Dakota gasification synfuels plant. She promotes an "all-of-the-above" Senate energy strategy for North Dakota. Senator Heitkamp also sits on the Senate Committee on Agriculture, Nutrition, and Forestry and the Senate Committee on Banking, Housing and Urban Affairs.

Panel I: Bakken Workforce Development Panel with Opening Remarks by Senator Heidi Heitkamp (D-ND)

*NOTE: All speaker presentations are posted on the QER webpage at: **www.energy.gov/qer***

The Honorable Heidi Heitkamp (D-ND)

Main Points:

1. It is an honor to represent the State of North Dakota, and to provide a forum for the energy discussion. Thank you Secretary Moniz for coming to North Dakota and recognizing that North Dakota is an essential place for energy discussions.
2. There are many challenges related to the workforce. We need new infrastructure, including airports. The people of North Dakota are underemployed, but people from out of state can be found at construction sites. We have serious challenges in terms of workforce development, but we have a lot of people who want to work. We need to talk to the young people and let them know of the opportunities that are here in North Dakota. We need to be strategic and build the workforce at home and educate them from young age on how they can provide a good living for their families right here.

Dave Clark, Interim President, Bismarck State College

Main Points:

1. Bismarck State College (BSC) was established in 1939. It is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, and serves 4,100 credit students and 17,000 students through continuing education – both online and on-campus across the country. BSC is the third largest campus in the North Dakota University System, behind two research universities. BSC offers 85 programs, customized training and apprenticeships.
2. North Dakota has the lowest unemployment rate in the nation. Even in 2002, before the current shale boom, North Dakota's unemployment was 2% lower than the national average. In 2013, as the U.S. recovered from the recession, North Dakota's unemployment rate dropped even more, to 2.5% from 2009 to 2013. North Dakota experienced 3% job growth per year, and the bulk of this growth is tied to energy. In addition to oil and gas, the State boasts coal, wind, ethanol and hydroelectric power.

3. BSC has offered energy programs since the 1970s. Thanks to grants from the National Science Foundation and the U.S. Department of Labor, in the last five years, the College has expanded its programs, including offerings in Renewable Generation Technology, Petroleum Production Technology, Smart Grid, and others.
4. BSC also prepares students in support industries affected by the boom, including welding and health care programs. Students are getting trained and employed in the State, sometime faster than they can graduate.
5. Thank you to all the dignitaries for attending this meeting. We are proud to host you and proud of our role in moving the United States toward energy independence and developing the workforce that fuels the Bakken.

Steve Shepherd, CTE Coordinator, United Tribes Technical College (UTTC)

Main Points:

1. I currently oversee all the short-term workforce training programs at UTTC. North Dakota has an unemployment rate of less than 3%. Online job postings have increased by 15% over the previous year. Low employment and economic growth have created a critical workforce shortage in many industries in the State. There are not enough qualified workers to fill the growing workforce demands of the region.
2. There is a great economic disparity on the American Indian reservations in the region. Unemployment rates on these reservations are much higher than any other part of the State, estimated at well over 50%. In 2005, the unemployment rate was 66% for American Indian tribes in North Dakota. Very little economic development activity occurs on the reservations in this region of the country. In several states, including Montana and North Dakota, less than 50% of Native Americans 16 years and older are working. In North Dakota, Native Americans are 24% less likely than non-Native Americans to be employed. The regional workforce shortage is an opportunity to get training and gainful unemployment for these communities, and break the cycle of poverty.
3. Regional employers indicated that a lack of qualified workers caused some to stop looking for new workers and to limit their operations accordingly. They are also anxious to work with colleges to help strengthen their workforce. Training programs are often offered in isolation and due to a lack of housing are not readily available to students who do not already live in close proximity to the institutions that offer them. The United Tribes Technical College is different and an exception due to the fact that we have housing and dorms.
4. It is hard to help people who have lived with persistent poverty understand how to successfully transition into the workforce. Some of the greatest challenges transitioning from training programs to employment include family responsibility, substance abuse, insecurity—no experience away from the reservation—lack of reliable transportation, and lack of clarity about workplace expectations or culture. Tribal colleges provide identity, faculty and mentors, emotional support, and housing.
5. To help graduates enter the workforce, we have come up with a new strategy. Now we can offer students the option of an extended stay so that upon completion of

their respective training, students can stay at the tribal collage for up to 3 months, as long as they are employed, until they are able to afford an apartment or other housing of their own.

Ron Ness, President, North Dakota Petroleum Council

Main Points:

1. We have reached 1 million barrels per day, a number which shows the significance of the resource of the Bakken and the significance for investment, infrastructure, and socio-economic issues and workforce. North Dakota has $50 million per day of economic activity. The State collects $11 million per day from oil taxes.
2. Oil and gas provides 55,000 direct jobs (one in seven jobs in North Dakota are in oil and gas). The industry also provides 28% of the State's private wages.
3. There are 25,000 jobs currently open in North Dakota, of which 35% are energy-related. By 2020, the State is expected to add 76,000 jobs.
4. North Dakota does not have this type of workforce availability. The federal government can help minorities and veterans, which are a perfect fit for these needs.
5. Obstacles to attracting additional workers include concerns about the longevity of the boom, road infrastructure, air transport, affordable single-family housing, and availability of child day care.
6. North Dakota is the world's learning curve on oil shale development and we are in a renaissance for rural North Dakota. There is tremendous wealth creation and entrepreneurial opportunities, but we must re-invest in the Bakken.

Pamela Trhlik Link, Chairperson, McLean County Board of Commissioners

Main Points:

1. I have worked exclusively on business recruitment and retention. Due to the oil boom, North Dakota has the lowest unemployment rate and fastest growing economy in the nation. This is a huge opportunity, but we have a job shortage.
2. The question is not "where are the workers needed," it is "where are not the workers needed?" The oil and gas industry needs transmission line expansion; communities need new sewer facilities and water treatment plants; families need new housing, and the transportation infrastructure system needs improvements.
3. In addition, hundreds of ancillary service businesses connected to core infrastructure projects are crying out for employees.
4. County employees, especially within the highway and law enforcement departments, are persistently recruited by other counties and businesses once their skills and experience grows. We have spent thousands more in the past three to four years, recruiting and replacing employees who have been drawn to the oil fields. What we are seeing is a greater need for private business. State and local governments need to come together with programs and projects to find a necessary balance with regard to workforce.

5. Workforce needs will only grow as more highways and bridges, new pipelines, and new projects kick off. Workforce development and retention needs to become a priority focus in North Dakota and in the nation.

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

Main Points:

1. Strategies that are happening for tribal employment center on each reservation having a community college. At the tribal college level, we are using grants to fund bus and truck drivers and oil field operation programs.
2. Tribal colleges are seeing issues with getting graduates placed. They are not having trouble finding jobs, but rather having trouble getting enough students graduated through the programs to fill job openings.
3. We are focusing on innovative ways to get the workforce out into the field, such as helping to transport them back and forth from the job site to their housing, in addition to placing students into jobs.
4. The tribes of North Dakota are making connections with for-profit groups and university systems in order to form partnerships and utilize other resources.
5. We are looking at obtaining a U.S. Department of Commerce workforce grant. We can use the data collected from this grant to determine if this program is working.
6. Another issue we are addressing is filling jobs for service staff in the Bakken area and the Western half of the state.

Panel Questions and Answers

Q: We have discussed specific technologies that the workforce is being trained in and specific needs that currently exist. We have also heard about low unemployment in the State of North Dakota and a high need for filling these technical skilled positions. What specific technologies are you looking to train or do you think are in the highest demand right now?

Dave Clark

- From BSC's perspective, we have a number of programs in high demand. Looking specifically at the Bakken's shale play, we see growth in our process plant technology program, which is directly related to the flaring issue that has the capacity to reduce flaring in the fields.

- As capacity ramps up, we will need more operators and technicians to operate the plants. We have established those relationships already with operators in the Bakken. We have waiting lists for many of these programs, so many of the issues are capacity related. There is limited enrollment because of the space needed for the lab part of the curriculum. In some of the cases I mentioned they are hiring our students before they graduate because they have such a huge need for the workforce. Fortunately, with our online capacity they can complete their curriculum online.

Ron Ness

- We need petroleum engineers and geologists; the universities are doing a great job growing these programs. Diesel mechanics is a job that is needed across the State, whether it is agriculture or energy. I think across all spectrums, those two-year trades are going to be critical.

Pamela Trhlik Link

- If you have your commercial driver's license, a lot of the trades and in the different training programs, are bringing people in from all across the country.

Brad Hawk

- A lot of the tribal colleges have a program to address the commercial driver's license issue. The other part of it is making sure that we make those partnerships with other trucking companies or other for-profit agencies or organizations that would employ them after graduation.

Q: Is there a federal role to help support attracting workers to North Dakota?

Ron Ness

- North Dakota's energy industry and these jobs are not just a North Dakota issue; it is a regional, economic pull that we are seeing from the Black Hills. People need to have a plan, including what skills are needed, what training is required, and where to live.
- We have a hard time reaching out to veterans and skilled labor not from the North; we need help in expanding to these two areas.

Dave Clark

- There are limited housing opportunities on campus. There is high demand and not enough room. We need support for this infrastructure, especially in areas where we are seeing a rapid build-up and growth occurring.

Q: What is one recommendation for the role of the federal government in addressing workforce concerns?

Brad Hawk

- There is not just one area; we see many areas in need. In the energy field, good things are happening and we have to keep up with it. We need to make sure that partnerships are being developed.

Pamela Trhlik Link

- There are two recommendations to be focused on: housing and pressure to get a comprehensive highway bill passed. We have not passed a highway bill since 2009. We could be looking at an additional 76,000 jobs in 2020. What does that do to our highway system? What does that do to our bridge system, to our rural roads that are already in

trouble in the State? I think that is one of the biggest things we can do to sustain all of the energy production going on in North Dakota.

Ron Ness

- We need to look at what energy means in terms of jobs and growth. We need key infrastructure aspects that add value in all sectors.

Steve Shepherd

- Housing– not only for students, but for people coming in from all over, and for North Dakotans as well.

Dave Clark

- Reinvestment in the Bakken. We have been successful with some federal grant applications. Having these funds available is beneficial. We would not able to provide the level of skill/training without outside support. We need to have these resources remain available and even add to them.

Remarks by Elected and Cabinet Officials

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The Honorable Jack Dalrymple, Governor of North Dakota
Main Points:

1. Bakken oil is not different from other light sweet crude oils. But we focused on the things that we can do as a State, and we have decided to call a hearing, probably within the next month, to seek input on conditioning crude oil before it is stored and loaded. We need to be able to say to people that we can do everthing possible to reduce the volatility of oil before it is transported.

2. Rail car safety and volatility is important. Why do recent studies from the government refer specifically to Bakken crude oil? It should be classified by measurable characteristics, not by geographic source.
3. Regarding the proposed rule making from the U.S. Department of Transportation (DOT) about safe transportation of crude by rail, we would like to understand this rule better. Specifically in the areas of car replacement, retrofit, and rail speeds. We would like to talk to DOT and work with the railroad industry and government to come up with practical steps to undertake immediately in North Dakota and not wait any longer to work on this issue.
4. There is an opportunity for value-added enterprises of natural gas and crude oil. A DOE loan guarantee is being discussed for a natural gas fertilizer plant in North Dakota. The plant will convert Bakken natural gas into valuable products. It presents an opportunity to convert ethane from flared gas into polyethylene products and create tremendous economic outcome. Targeting flared gas as a raw material is in the spirit of what DOE is trying to accomplish.
5. North Dakota is committed to promoting more pipeline capacity as rapidly as possible. This is the way to move large quantities of crude oil to our nation's refineries.
6. If there is anything that the federal agencies can do to help us move pipeline projects forward, across other states, through other jurisdictions, down energy corridors that involve more than one utility, we would ask you to help us with that. In North Dakota, we think we can build these projects quickly, but we do have to cross other states and that becomes a bigger challenge.
7. The E15 ethanol-gasoline blended fuel option is a tool to pursue. We currently have a surplus of corn in the U.S. The old argument about how there is not enough corn for everybody is no longer true. Corn is $2.50 a bushel. We have more than enough corn for all the food supplies and feed supplies, plus a generous supply for our ethanol plants. This product will function well in engines and we need to move that fuel option forward. There will be no increase in the expansion of renewable fuels until we authorize a stronger blend.
8. We can explore many other blending situations that can be more effective. Based on recent research, the most effective fuel of all is a blend of 76% diesel, 12% ethanol, and 12% biodiesel or soy diesel fuel. DOE can look at extensive testing of these blends of fuel.
9. The commitment to a reduction of carbon dioxide is correct. However, in the current situation in North Dakota, we are asking: what is the technology that we are expected to bring forward to comply with clean coal standards for the future? What is economically feasible and will get the job done?

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

Main Points:

1. The QER is being taken seriously in North Dakota and Washington, D.C. President Obama's vision is for clean and affordable energy to contribute to goals for the

economy, jobs, the environment, the protection of global climate, and the protection of our homeland security. This requires a comprehensive and integrated strategy, which includes the following:
    a. Technical analysis
    b. Coordination among governments with a stake in the energy domain
    c. Active engagement of external stakeholders, such as the QER stakeholder meetings
2. The focus for the QER in its first year is the nation's infrastructure for transporting, transmitting, storing, and delivering energy.
3. The infrastructure that we are focused on this year, the infrastructure for the transportation, storage, distribution of energy, is being subjected to rapid changes and new stresses from a number of powerful forces.
    a. The first of those forces is the changing physical flow of energy commodities in the U.S. Our transportation infrastructure has evolved in part in response to past patterns of where we have produced the raw materials for our energy system and where they have been consumed. Those patterns and flows have changed rapidly in the past few years, and North Dakota and the Bakken have been big parts of that. This is all part of a larger picture in which the development of new sources of energy and the introduction of new energy technologies have shifted demands and patterns of energy supply and energy transport.
    b. The U.S. population and regional immigration have caused shifts in transportation. Energy uses of our national transportation infrastructure have to compete with these other demands for the same infrastructure
    c. There are stresses on transportation due to climate change, such as adapting transportation while eliminating greenhouse gas emissions.
    d. Diversity of decisions makers–such as state, oil and gas, refiners, farmers, railroad, power plants, environmental regulators–are only a partial list of stakeholders involved in these issues. While diverse stakeholders act independently and have adverse interests, they are all intertwined and single decisions add up to big impact.

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

Main Points:

1. I am pleased to have the opportunity to share with you what the U.S. Department of Interior (DOI) is doing to support and balance development of oil and gas resources in the Bakken region. Sharp increases in production bring challenges across the board, including more infrastructures and a more educated workforce.
2. The Bureau of Land Management (BLM) in North Dakota manages less than 60,000 surface acres of public land, but is responsible for managing oil and gas resources for over 2 million acres of federal and leased Indian trust subsurface in the State, which is a significant amount.

3. BLM plays a vital role in leasing and approving permits for applications to drill new wells and facilitating the transportation of oil and gas produced from the Bakken. This is because BLM's responsible for issuing right-of-way grants authorizing pipeline projects that involve two or more federal agencies for oil and gas, even if most of the surface is privately owned.
4. The DOI North Dakota field office has already authorized the rights-of-way for over 160 miles of pipeline associated with the Bakken link and the CenterPoint Energy Project.
5. The lack of sufficient pipeline has led to a high level of natural gas being flared and has created environmental and economic impacts due to this loss.
6. To be successful in developing this infrastructure we need to respect concerns of Indian tribes on a government to government basis.
7. All of this work has created manpower staffing issues and it is a challenge in this economically competitive environment. The BLM budget has declined 20% since 2007. Headquarters has provided resources, but we need to expand the law that expires in 2015. We are using human resource tools such as relocation, locality pay, student loan repayment, and housing as needed.
    a. We must be responsive to industry requests, while meeting accounting and safety requirements.
    b. We need to work together, to fully recognize the opportunities presented.

The Honorable Kevin Cramer (R-ND), United States House of Representatives

Main Points:

1. Some good legislation has been passed. It is an important example to look for winners on all sides of the issues, not just to look for winners and losers. The bill I introduced streamlines the permitting process on federal lands in a way that brings multiple agencies under the same roof so that you not only have, but you have the dynamics of synergy as well and creativity. We found that by putting everyone under one roof, we can reduce the permitting processing period by 25%, but also increase inspections by 25% - this is win-win. There does not have to be a loser.
2. Over a year ago, the U.S. House of Representatives passed the Skills Act to bring various complicated workforce development and career technical programs together under one umbrella. And today, hopefully, we have at least the foundation of an education program that can make it relevant to the economy.
3. There is legislation that still needs to be passed, such as the Natural Gas Pipeline Permitting Reform Act, the North America Infrastructure Act, the Responsibly and Professionally Invigorating Development Act (RAPID), the Northern Route Approval Act (Keystone), the Domestic Prosperity and Global Freedom Act, endangered species bills, and the Electricity Affordability and Security Act. Congress needs to pass these bills.
4. I hope to get to the point where we can capture natural gas and use it to enhance oil production in the future. However, we must make sure to not get the rule ahead of the technology.

The Honorable Heidi Heitkamp (D-ND), United States Senate

Main Points:

1. North Dakota is one of a kind in this country. North Dakota has biofuels, wind power, geothermal potential, lignite generation, electricity and gasification, sequestration, enhanced oil recovery, power generation from lignite. We are the second largest producer of crude oil, and have the potential for great natural gas development. We truly do "all-of-the-above" here.
2. From 1973-75 we were saying that it is done, we will have to use coal to fill transportation gaps. And then shale came. And shale developments have changed how we think about oil and gas in this country. It is about the North American potential, not just the U.S.
3. We do not know what the production of the future will be. We do not know what the next generation of fuel source will be. We do not know what will change the landscape for renewable energy, fusion, fission, etc. We do know that when we develop it, we need to move it. The biggest challenge in the U.S. for an energy policy that makes sense is moving the energy to market.
4. In North America it all needs to be linked together. We do not see a border with Canada. We work cross-borders, have longstanding relationships. Technologies developed in Canada can be deployed down here. We have a growing relationship with Mexico. Mexico has shale oil, and we want to be a part of what they are doing. Mexico wants to send shale to Central America because natural gas prices are $25 million cubic feet.
5. So how do we move this energy? We need to get rid of the issue of "not in my backyard" and use transportation as a tool to stop the resource (i.e. the Keystone pipeline). The Keystone pipeline is one of those things that if you really analyze a balance on carbon or you analyze how you think about it, it has so little to do with carbon and so much to do with a disagreement about what should happen with the oil sands north of Calgary. And so here we are using the transportation of energy as a way to control the fuel source, and that needs to end.
6. We need to build smarter grids for electricity, more resilient and reliable grids, protecting against a cyber attack that could cripple the country. We need to build more pipeline capacity, especially out of North Dakota. Providing more capacity to New England would stabilize their prices, but that has not happened yet.
7. The policy direction that must be pursued is the policy of exportation of natural gas and also crude oil. We have had a policy where we do not export crude oil. But we can export gasoline and refined products. The ability to export crude will help not only the markets in our country, but it will help stabilize the world. It will be a form of soft power like we have never seen in global politics.
8. People do not want to export natural gas because they want to prevent the fossil industry from growing because we like low natural gas prices and we like to determine fuel sources and generation of electricity. When you keep them artificially low, not letting them find markets, what you end up with is curbing production, which is very dangerous.

9. My suggestion in transportation is figuring out a way to create a national policy on pipelines. Figure out a way to develop the consortium so that we are not pitting one state against the other; we are creating a network, a system of networks so that we have a design on where we are going to move energy. People understand when a pipeline comes through their state, that it is essential to the economy of this country. Build out a nation consensus on where/how to build out pipeline system.
10. Do not think just about moving power generated in the U.S. Think regionally. Think about transporting our energy globally. This will give us predictability.

The Honorable John Hoeven (R-ND), United States Senate

Main Points:

1. North Dakota is the only state that produces carbon capture and sequestration. North Dakota is a leader in energy, and in all types of energy. The U.S. could be energy secure in 5 years.
2. Being energy secure means:
    a. Produce more energy than we consume
    b. Produce from all sources (like North Dakota)
3. The QER is not a new idea. It was proposed in the House and in the North Dakota legislature. I am pleased to see that the Administration is here in North Dakota doing this comprehensive planning for the nation.
4. Let's have a goal. If this is a planning process, let's set a goal–let's be energy secure, not independent because it is a global market.
    a. Economic growth, national security, jobs are benefits of the QER goal.
5. North Dakota has EmPower North Dakota which is a comprehensive energy plan.
    a. It focuses on energy from all sectors: renewable energy and traditional sources.
    b. We started at a time when energy companies were not coming to North Dakota, leaving the State to make investments in other places. We have to build the necessary environment to encourage investment to deploy new technologies and environmental stewardship.
    c. Today we are the second largest oil producing state in the country. Together with Texas, which is the largest oil-producing state, we produce more than 4 million barrels a day, which is over half of the 8 million barrels a day that this country produces domestically. At 8 million barrels a day, we now produce two-thirds domestically of our total oil consumption. That is up dramatically and significantly from less than 50 % just a few short years ago.
    d. Oil production on public land has gone down 7% since 2009. Why? Regulation and bottlenecks. The focus of this QER is infrastructure. To become energy secure we need more energy, but need to get energy to the markets-infrastructure. We should address regulation and infrastructure of all kinds, and regulatory certainty to make investments in infrastructure– including building the Keystone pipeline.

    e. If we give industry the certainty it needs, they will make investments. Investments will create infrastructure and infrastructure deploys technology, at a lower cost, more dependably and with better environmental stewardship.
6. We are trying to put forth legislation with a "states-first," "all-of-the-above" legislation. We can make states a laboratory of energy and empower them to do what North Dakota is doing.
7. Legislation I propose:
    a. Domestic Energy and Jobs Act; Keystone
    b. EmPower States Act- states lead role in regulating
    c. North Atlantic Energy Security Act- work with allies in liquid natural gas (LNG) export

The Honorable Anthony Foxx, Secretary of Transportation

Main Points:

1. The U.S. Department of Transportation's (DOT) role in the issue of rail safety is ensuring that these products move in as safe a fashion as possible. Increased production here in North Dakota has led to a lot of work in DOT, including operation ongoing and classification testing. Crude oil here is more volatile than compared to other crude. Additionally, because oil is transported over long distances and high numbers of trains back to back, the risk level is higher than we see in other parts of the country.
2. Since 2008 there has been a 4,000% increase in railcar loads of crude by rail. This fact is why we have taken two dozen steps to strengthen ways to deliver this oil. We have developed a proposed rule to address challenges we see with the transport of crude by rail. The comment period is open for 60 days. Please submit all comments within this period. We need to complete this as soon as possible because the industry wants certainty.
3. The rule proposes to enhance 10 car standards and phase out within two years older DOT 111 tank cars for shipments of packing group 1 flammable limits, including most crude oil. We do not single out Bakken oil from other oil. We focus on characteristics in the rule, not highlighting a region. It also sets the stage to improve design requirements for tank cars built after October 1st of next year by proposing thicker, more puncture-resistance shelves and other safety features like enhanced braking and rollover protection.

The Honorable Ernest Moniz, Secretary of Energy

Main Points:

1. We are committed to an "all-of-the-above" strategy. North Dakota exemplifies this.
2. These regional meetings are important. We agree that states and regions are where we have to look to understand energy issues and energy infrastructure issues. We will learn information from panels at the meetings, but we welcome information from everyone in the public. We are open for information from any medium you can

reach us. Our first results are coming out in January 2015 and you can comment up through that time (formal comment period ends October 10, 2014).

3. I want to emphasize that energy cuts across almost every department in the federal government.
4. There is an importance of working with Canada and Mexico. We will be holding an Energy Ministerial with Canada and Mexico later this year in Washington, D.C. Panel members might want to attend this.
5. The coal gasification plant Senator Heitkemp mentioned previously was first started through a DOE loan guarantee, and is now a very profitable major enterprise that is a technology leader in converting carbon dioxide into a valuable commodity. This is the only operating plant in the U.S. One additional plan just started in Texas for natural gas.
6. The focus on infrastructure this year is appropriate. So many areas are in need of these challenges being addressed. Energy has been developing so fast that we do not have the infrastructure to adjust.
7. Propane issues in the Northeast were dire this past winter and it was a hardship for people, a large part of which was infrastructure constraints and other circumstances (i.e. propane needed to dry corn led to the propane shortage.) As a result, the U.S. Energy Information Administration (EIA) is increasing its propane data collection.
8. We are still below the 5 year average of stocks, and need to encourage building of reserves all the way down through the consumer level so that if another polar vortex comes, we are not caught unaware.
9. We are working on developing a strong research and science basis of establishing a basis of different crude oils. Deep chemistry, programs on combustion properties, programs on fires and their implications are part of our effort. DOE is bringing these programs together with DOT and working on liquid transportation issues.
10. North Dakota and the Marcellus region are developing gas in new geographies which leads to challenges. Ripples are felt beyond the region and country. We have dramatically reduced imports, and as the recent U.S.-Africa Summit shows, our decreased imports are their decreased exports.
11. We are looking at risks to energy infrastructure in an integrated way. This starts with extreme weather. We expect weather to get more extreme, and in particular new infrastructure should be built to be resilient to weather impacts. This goes back to the interconnection of physical, cyber security, and the interdependence of natural gas and information technology. If one infrastructure goes down, we cannot get to energy infrastructure because it is dependent upon the other.
12. The Administration's Climate Action Plan has put the question of resilience and adaptation at the same level of mitigation.
13. Addressing emissions from power plants is an ongoing discussion.
14. "All-of-the-above" means we are making investments aggressively across all fuels to lower the cost of low carbon alternatives, including nuclear power, renewable energy, carbon capture and sequestration (CCS) and efficiency.

15. As we move forward, we want to emphasize the critical role of states and their ability to be flexible and provide solutions. We encourage states to come together as regions to meet this challenge.

Public Questions and Answers

Q: (Adam Metzker) What is the outlook in terms of energy for the next five years for the U.S., and is energy going to play a role in regaining the power in the world?

Secretary Moniz

- The outlook is robust. We are producing 8.4 million barrels per day of oil. The EIA expects that number to increase to roughly 10 or possibly as high as 12 or 13 million barrels a day. In the U.S., we are building next generation power plants and are also seeing an advance in renewable energy. Wind power is now 4% of electricity in the nation. Solar power is more regional. In California solar power is 6% of supply. Internationally there is no question that production in the U.S. will affect the geopolitics of global energy markets. Our energy situation is certainly the lead driver of the U.S. being looked at now as a go-to place for manufacturing. Our energy situation is the catalyst; what is happening here is really changing the world.

Senator Hoeven

- Energy is incredibly important in terms of global power, global strength, and national security. Look what is going on in Europe. Look at what President Putin and Russia are doing in Ukraine and the reticence of the European Union to respond, let alone join us in meaningful sanctions. So you make a very important point. If we want to be competitive in the global market in manufacturing, we are not going to do it with low wages; we are going to do it with lower energy costs and good wages. Energy is driving job growth.

Congressman Cramer

- I think the best way to get at the deficit is to have a robust economy. And while we become more of a powerhouse in the global marketplace, by using the energy bomb as opposed to a missile in Europe. We have a Secretary of State who a year ago was in Israel negotiating the peace agreement between Israel and the Palestinians, and today he is negotiating a cease fire. Today the President authorized bombs to be dropped in Iraq. The energy situation is the catalyst for that all happening. So what is happening here and in Marcellus is really is changing the world.

Senator Heitkamp

- The ability of the U.S. to deploy energy to places that do not have energy gives those countries the ability to build out their economies. As these nations provide economic opportunity that stabilizes those regions, we have to begin to address the advantage that we have to deploy our resources so that soft power will have a greater impact than what we have seen in terms of boots on the ground.

Dr. Holdren

- The U.S. is still by far the strongest economy in the world, and in science and technology our innovators are the most prolific. The U.S. does not lack for influence in the world.

Secretary Foxx

- One of the constraints on our ability to seize the energy moment is our infrastructure and our ability to make it all work together. We are going to see increasing competition for rail lines which carry agricultural products, and now the growing economy around energy products moving by rail. How do you make this work? The Administration believes it is important to have an intentional growth-orientated infrastructure policy. We need to reduce congestion and encourage safe, efficient flow of goods around the country.

Q: (Ms. McCarten) Burke County has rail running 24 hours a day, and it is crude in the cars, and we have an overpass with rail going underneath. Is anyone talking to about road infrastructure? When we look at roads and get them up to speed, and we look at the Canadian border, the roads are not up to the weights so Canadian trucks cannot come across the border.

Governor Dalrymple

- We are investing in North Dakota hundreds of millions of dollars in infrastructure in Western North Dakota. Actually, a total of $2.7 billion for this biennium and much of it going into roads and highways, including building four lane roads between Watford City and Williston. We are improving overpasses and by-passes around cities. We have not gotten to Burke County yet, but we will, because we are supporting not only state highways, but we are putting state dollars directly into counties and county road systems now, totally unprecedented in our history.

Secretary Foxx

- On the rail side, we hope that the proposed rule, once it is final, gives you more certainy about what safety measures are in place and how we trying to address safety on the rail system. We are trying to fill gaps.
- A week ago, Congress passed a measure to patch up the Highway Trust Fund and kept it in place for 10 months. The country is going to have a hundred million more people over the next 35 years, and we will have the need to double our freight capacity. That fact will affect everything including roads, rail, rivers and airports. In fast-growing places like North Dakota, our population will continue to grow. A growing population means more commodities on the roads. Washington is not helping as much as it should. We will have this problem until we have a long term transportation bill.

Dr. Holdren

- The Keystone pipeline will remove 500 trucks a day off roads in your area. We need the pipeline as well as improved roads and rail. We need a long term pipeline bill.

Panel II: Bakken Infrastructure Constraints and Solutions

*NOTE: All speaker presentations are posted on the QER webpage at: **www.energy.gov/qer***

Presenter Name: Matt Rose
Affiliation: Executive Chairman, Burlington Northern Santa Fe (BNSF)

Main Points:

1. We burn about 1.3 million gallons of #2 diesel fuel per year. One ton of freight can be moved 500 miles on one single gallon of diesel. We call that pretty good fuel efficiency. We have improved fuel efficiency by 100% since 1980.
2. Burlington Northern successfully tested natural gas locomotives using LNG and we are currently testing a dual-fuel option.
3. We are the largest ethanol and coal hauler, hauling about 100,000 units per year of ethanol. EPA regulations have provided an opportunity to realign our coal business.
4. Crude by rail accounts for 800,000 barrels per day. That number was zero five years ago.
5. Crude transport by rail is very safe (99.7% damage-free, perfect delivery). We have an enormous amount of preventative technology, which is why we have the safety record we have today. The next generation tank car will be wider, thicker, will prevent puncture, and will remediate spillage in cases of derailment. To ensure reliability, we need reasonable speed restrictions that enhance safety, but should not encumber freight traffic.
6. We look it as a three-legged stool: prevention, mitigation and response.
7. Operating decisions need to be made thoughtfully in the mix of other products being hauled.

8. Growth is huge – in North Dakota, in the last five years, we have increased units in and out of the State by 144%.
9. We need to get tank car standards that reduce risk significantly, but allow the railway to operate efficiently.
10. LNG has a great promise to be the fuel of the future for the railroad industry, but we need help in the regulatory environment to facilitate that transition.

Presenter Name: Robert Steede
Affiliation: Director, Enbridge, North Dakota

Main Points:

1. We are living in an exciting time for energy in the U.S. and Canada. We operate the longest and most sophisticated oil and liquid transportation system. We are the single largest importer of crude oil originating in Canada. Enbridge has invested more than $1.2 billion over the past decade alone, expanding our energy infrastructure so that we are able to move to market even more of the high quality Bakken crude oil that North Americans need.
2. Due to pipeline expansion and rail projects, we now have capacity to move 355,000 barrels per day (bpd) of crude oil out of the Bakken region. Total capacity is 435,000 bpd with our current system. This is less than one half of average daily production in the Bakken. In less than a decade, Enbridge has increased its takeaway capacity from only 80,000 bpd in 2005 to nearly six times that amount of 475,000 bpd, and we are not done. Considering average daily crude production, we feel that more pipeline capacity is needed.
3. We have proposed a 610 mile pipeline, following existing corridors which will increase to total takeaway capacity from the Bakken to 700,000 bpd capacity. In the long term it will provide a stable and reliable source of crude oil for U.S. refineries, with an early 2016 anticipated in-service date.
4. We have a long term history of solving energy infrastructure challenges and restraints, and expect to continue doing that in the future.

Presenter Name: Mindi Schmitz
Affiliation: Government Relations Specialist, Environmental Law and Policy Center

Main Points:

1. I am going to touch on two points: 1) we need to expand our energy focus to include this State's renewable energy potential, and 2) as oil development flourishes in our State, we need to ensure that wise policies are in place to protect public health and minimize negative environmental impacts.
2. The boom is primarily focused on Bakken oil, but there are other opportunities to diversify the State's energy mix. It is strategically important to expand our commitment to renewable energy. There is a substantial and costly gap between the potential wind resources in the State and the development in ground. This represents lost jobs and revenue when not exploited. While the Bakken is located in one region

of the State, wind power potential is statewide. A substantial constraint is transmission.

3. Inadequate transmission is the biggest impediment to renewable energy development in North Dakota. We urge DOE to work with Midcontinent Independent System Operator (MISO) to make sure adequate transmission is put in place to get our wind power to market.
4. The economic boom has produced jobs, reduced unemployment, stimulated the economy, and responded to the nation's demand for domestic fuel. However, flaring has wasted millions of British thermal units (BTUs) and denied land owners and tax payers millions in revenue. Flaring is unnecessary and harmful for the environment as well. Some measures are being taken, but the volume of flared gas increases as new oil wells rises.
5. The Bakken is rich with natural gas liquids. Adequate gas supply is essential to ensuring that heat and the lights stay on in peak periods. Last winter there was a propane shortage that could have been alleviated, at least in part by captured natural gas liquids (NGLs) from fracking.
6. We are also concerned about water usage demands and water contamination due to fracking. Fracking and flaring are devastating special natural sites in North Dakota.
7. Five recommendations for DOE to include in the QER:
    a. Adopt mandates to minimize flaring from oil and mixed oil-and-gas wells;
    b. Promulgate requirements to minimize methane leakage from wells, pipes and associated gas production and transport equipment;
    c. Pass more stringent rules for pipelines, railcars and trucks to minimize oil and wastewater spills, and strictly enforce those rules;
    d. Mandate that, where possible, fracking wastewater be recycled and fund research to increase wastewater recycling; and
    e. Bolster protections for special places under federal control, including Teddy Roosevelt National Park, the Dakota Grasslands, and other sites with historical, archaeological and natural resource assets.

Presenter Name: George Boyajian
Affiliation: Vice President of Business Development, Primus Green Energy

Main Points:

1. There are ways to solve the challenge of flared gas. One solution is building more pipelines, but that will take time and will not reach all areas. A second solution is to turn it into valuable product. Small-scale modular systems can take gas from pipelines and turn it into mid-octane gasoline. We are rolling out these technologies in Kazakhstan, Turkmenistan, and Texas.
2. We take natural gas and associated natural gas liquids and tear those apart through steam-methane reforming which breaks down compounds into carbon monoxide and hydrogen. There is a four stage process to get water and gasoline. Water is cycled back into the system. We take the product offsite at the wellhead, with no additional

infrastructure needed. This is a low-impact (almost green) technology with very low maintenance.
3. We feel that we can serve all the stakeholders including landowners, plant operators, and the environment.

Presenter Name: Mike Eggl
Affiliation: Senior Vice President, Communications & Administration, Basin Electric

Main Points:

1. Basin Electric is a mid-size utility with 137 cooperative members. We serve 2.8 million consumers throughout our territory.
2. Out of necessity, we have begun an aggressive plan to build peaking power plants near the load, as the Bakken has grown. We predict another 1,600 MW of load growth. We plan to look at generation purchases, generation development, and transmission enhancement.
3. Lots of loads are unpredictable and significantly variable.
4. We should take as long of a view as we can. We cannot move forward on an emergency basis. A similar long-term vision should be applied to secondary oil recovery.

Panel Questions and Answers

Q: What challenges are you facing in this region?

Robert Steede

- Attracting and retaining good people is a big challenge. A lot of the things that we all are doing are very linked together, and getting these different things to line up at the right time with the right schedule in a predictable way is a big logistical challenge for us.

George Boyajian

- Our biggest challenge is watching the maturation of the regulatory process appear. And as the State evolves and begins to enforce flare mitigation plans, I think we will see a greater demand for flare solutions. Until that happens we will be waiting to serve that market.

Matt Rose

- North Dakota has been good to work with in terms of facilitating the permitting process. When we get the federal government involved, we end up with a very sequential process by which permitting gets drawn out for years. We will find that we will not be able to get the permits even if we have the capital.

Q: What are R&D deficiencies in the technologies that you work with? Is there a federal role to aid in that area?

Robert Steede

- There are always opportunities; technology is advancing and improving. If I pull out a pump from 1950 and compare it to today, the efficiency levels are nowhere near each other. We have not got it mastered, so we can continue to do things better and we should strive to continue that.

Mindi Schmitz

- It is important to continue to advocate for policies that fund a robust R&D, and there is a significant role that the federal government should be playing.

George Boyajian

- Regarding the grant process, it often depends more on the grant writer than the technology. The federal government is doing a good job in terms of supporting basic research. On the applied side, we need more public-private partnerships on deployment, including some at the state level.

Q: What is one suggestion would you provide the QER Task Force regarding the role of the federal government?

Matt Rose

- I recommend certainty of the regulatory structure and tax policy to allow us to build-out. We spent decades watching manufacturing companies try to leave this country. Shale gas is changing our country in a way we never thought possible. Six years ago, people were declaring peak oil, saying it would be $250 per barrel in five years. We need regulatory certainty.

George Boyajian

- There are enormous returns on information technology with low capital risk. Dealing with commodity technologies, the hurdle rates for returns are more challenging for private equity. This is why we need private-public partnerships. All companies are happy to be the first or to be second. If the federal government or the states step in to be first, the transition of technology from the lab to the marketplace will go faster.

Mindi Schmitz

- I would like to emphasize the importance of the renewable energy industry in North Dakota. DOE needs to work with MISO to get adequate wind transmission.

Robert Steede

- It is important to get certainty, including continued certainty around the rate-making process in the Federal Energy Regulatory Commission (FERC). This needs to continue in

the future. Other areas where there could be some increased certainty are around granting permits.

Panel III: Responding to Changing Infrastructure Needs

*NOTE: All speaker presentations are posted on the QER webpage at: **www.energy.gov/qer***

Presenter Name: Mike Turner
Affiliation: Senior Vice President, Hess Corporation

Main Points:

1. Hess has had a significant local presence in North Dakota. The company drilled its first well in the State 65 years ago.
2. Today, Hess has 13 rigs running and approximately 830 wells operational across an area of roughly 640 acres in the State, serviced by a workforce of approximately 4,000 people. The company's current net Bakken oil production is about 85,000 to 90,000 barrels of oil equivalent per day, with an expectation to reach more than 150,000 bpd by 2018. Since 2010, the total investment in the region totals $10 billion.
3. It is important to recognize the critical role state leadership has played in this renaissance. North Dakota created a regulatory framework that can serve as a guide for other states.
4. Technology is at the core of our company. Hess' ability to safely and reliably transport products produced here depends on the quality and reliability of access to key infrastructure--specifically the tank cars, loading facilities, rail lines, pipelines and gathering lines. Over the last year, crude by rail transport has risen to a level of national importance.
5. We need to manage this evolution in a well ordered and effective manner. Prudence dictates that we proceed with proper deliberation, using science-based data and on timetables that reflect what is technically possible and practically achievable.
6. Another challenge in the Bakken has been the lack of necessary infrastructure in place to capture gas. The regulatory process for gathering gas and the intrastate

pipeline approval process is complex. The regulatory process could be improved if the multiple agencies involved (state and federal) were to adopt a more streamlined and interconnected system. We would ask that the QER consider how best to modernize the system to ensure it is fit for purpose.

7. At Hess, nothing is more important than doing business safely. We are committed to operating in a secure and responsible manner because our people live here. We are willing and eager to work with state and federal officials to ensure that Hess is not just in compliance with applicable regulations, but where possible, is exceeding them in ways that define a best practice for our entire industry.

Presenter Name The Honorable Brian Kalk
Affiliation: Chairman, North Dakota Public Service Commission

Main Points:

1. Producing more energy at home is better for foreign policy, and we are moving the needle the right way. The development of oil, gas, and wind power are all good. We cannot forget how important it is to manage what we are doing. The price of oil would be more, and choices overseas would be less, if we did not have the Bakken.
2. There are many regulatory groups involved and if some groups sit on their hands and not make a decision, we do not get anywhere.
3. It is very important that we continue to bring in Regional Transmission Organizations (RTOs). They help us better manage change, so that we are not reliant just on North Dakota to develop electricity. If North Dakota does not use all the energy at some point, we can move it South, East, and vice versa.
4. We need to put coal back into the mix. Carbon dioxide rules do not help anyone. The country needs more energy, and we need coal and nuclear-fired generation. Carbon dioxide rules are the biggest impediments we might face.
5. There is a market for natural gas, but we do not have a lot of people here so we will have to export these capabilities.
6. We need to continue to grow telecommunications infrastructure in the State. It is important to the energy industry. Changing universal service funds, changing federal policy on who regulates what, creates a challenge.
7. We also need to make sure there are good emergency response services. Strong emergency response is good for everyone.

Presenter Name: Claire Vigesaa
Affiliation: General Manager, Upper Missouri Power Cooperative

Main Points:

1. Our service territory is roughly the size of Virginia, Maryland, and Delaware combined (including DC), but customer density is much lower. The utility does not operate on a for-profit basis.
2. Reliability is paramount, but in rural America affordability is important as well.
3. The Upper Missouri region has turned into a world renowned oil and gas exploration area. Nearly every one of the 184 drilling rigs in North Dakota is in our region. Energy

sales have grown from 186 MW in 2004, to 800 MW in 2014. In 10 years, the utility added 1,139 miles of high voltage transmission lines, 25 transformer substations, 72 distribution substations, and 360 MW of new generation have been built. However, transmission capacity is extremely tight and will continue to be. New projects and initiatives are critical to ensuring transmission capacity and there is no room for delay.

4. As electric cooperatives, we are very safety and reliability conscious, investing time and resources to build affordable, safe, and reliable systems.
5. There are human resource limitations. Projects undertake large amounts of engineering and planning. Long-term planning is a luxury and labor supply is tight.
6. Landowners are frustrated about getting easements for electricity lines, gas lines, telecommunications, and oil pipelines. Access to build through public lands is difficult and time consuming.
7. Environmental stewardship is important but the permitting process is very long and burdensome. Balance is desired in that area.

Presenter Name: David L. Goodin
Affiliation: President and Chief Executive Officer, MDU Resources Group, Inc.

Main Points:

1. MDU has been in North Dakota for 90 years and operates in 44 states.
2. We have been seeing the same load growth as others in Eastern North Dakota, Eastern Montana, parts of Wyoming, and parts of South Dakota and have been adding generation. Adding generation is a challenge.
3. The House and Senate passed legislation which cobbled together enough money to patch up the shortfall in the Highway Trust Fund and extend its expenditure authority another eight months through May 2015. We appreciate these efforts, but a 6 year extension for highway funding would really help. Eight months is appreciated but not sufficient.
4. We are building the first Greenfield refinery in the U.S since 1976. The plant will go from groundbreaking to online in 20 months.
5. We are currently developing a large interstate pipeline project that would transport some of the growing supply of natural gas from the Bakken fields of North Dakota to markets in the Midwest. We need commitment from users and producers to use that pipe.
6. We appreciate the supportive regulatory environment. Where there is certainty, the capital will follow. If there is regulatory uncertainty, capital is hesitant.

Panel Questions and Answers

Q: Do you see a federal role in the need for transmission lines, and Regional Transmission Organizations (RTOs) coming in?

Brian Kalk

- There is absolutely a federal role. There are some ongoing disputes, and as soon as the Southwestern Power Pool (SWPP) and MISO disputes can be settled the better. The challenge that we will see are seams issues. The federal role is to keep RTOs playing nicely together.

David L. Goodin

- It is incumbent upon us to continue to own and operate our assets. We would not advocate pancaking of transmission tariffs that would end up in customer bills.

Claire Vigesaa

- Yesterday we had a meeting to work these things out. There is hope.

Q: What challenges do you see that might arise to the forefront in the future?

Mike Turner

- When you go into a large-scale development, you start to drill out wells and start to build a significant infrastructure for producing assets. Recovery in the Bakken is down about 10%. The potential for more recovery is important. The long-term value proposition in enhanced oil recovery is very strong.

Brian Kalk

- One of the mistakes we made earlier was thinking that the oil play was a one- or two-year play, but now it is clear that it is decades. You have to refine the estimates when building capacity to plan for a longer future. The biggest concern at the Public Service Commission is pipeline growth and safety.

Claire Vigesaa

- Oil and gas is very research focused. You can see what has happened ten years' time. There is a lot of work to do in our industry. We want to know what the next few years of technology will be and its impacts.

David L. Goodin

- I can certainly envision an area where manufacturing value added activities become more prevalent in the State. Manufacturing will be coming back onshore as energy costs go down. We may see more businesses worldwide looking at North Dakota.

Q: What is the role of the federal government?

David L. Goodin

- If you take a global look at the North Dakota production over the last several years and overlay that with the unrest in oil, oil that is shut in due to civil unrest, North Dakota has made up all that production. Words that have been used quite often are regulatory

certainty, especially around rail; such as getting to a permanent solution on what our rail design and rail process will be going forward. Another important topic is improving regulation of permitting – not getting things done haphazardly, but getting things done efficiently. There are lots of integration points for a well.

Brian Kalk

- Anything that we can do to streamline seams issues (regulatory jurisdictions).

Claire Vigesaa

- We have a lot to do with limited resources and streamlining regulations is key. We do not want to circumvent concerns, but want predictability and efficiency.

David L. Goodin

- Assert DOE influence in an "all-of-the-above" national energy policy that is sincere.

Public Comments

The public is allowed to sign up to provide comments, and each commenter is allowed five minutes in which to make them. Each commenter was asked to approach one of the standing microphones as their name was called, introduce themselves, their organizations and make their comments. On the stage representing the DOE were Matt McGovern, Greg Gershuny and Kate Marks, all of whom are with the DOE Office of Energy Policy and Systems Analysis.

The U.S. Department of Energy encourages everyone to file written comments at QERcomments@hq.doe.gov to ensure a wide variety of public input into the QER process.

Public Commenter Name: Eric Norberg
Commenter's Main Points:

1. I am the President of Allete Clean Energy's Energy Corridor Project which is specifically designed to respond to the need for additional energy transport infrastructure to and from the Bakken and energy and energy related products to and from the Bakken. The Project provides pathways for transporting oil and gas, fresh and waste water, and in the future, carbon dioxide from Eastern power plants to oil fields for enhanced recovery. Unlike existing energy projects, these pathways are all sited on a single right-of-way next to a transmission line, as opposed to separately routed paths. In this way, fewer property owners affected. How does this relate to QER goals? 1) It addresses needs for additional capacity to move gas and oil from the Bakken, 2) It provides an alternative for transporting gas that is currently flared, and 3) Provides an opportunity for carbon dioxide capture, storage, and sequestration.
2. I appreciate the dialogue with you and the congressional staff. It would be good to have regulation handled by a single agency to encourage invesemtent in projects like this.

Public Commenter Name: Marie Hoff
Commenter's Main Points:

1. I am a member of the Dakota Resource Council and past Chairperson. These are not my own views but also written comments submitted earlier. Sorry that many of our state legislators are not here for our remarks.
2. Grassroots organizations understand what is happening on the ground level with people experiencing what is happening in the State. We organize people in general to protect agricultural and the other resources in the State. There has been a lot of talk today, about developing the infrastructure. I could not help but think that our real infrastructure is our land, soil, air, water, people, animals, all of which are being impacted by the oil boom.
3. Think about the legend of King Midas, turning his daughter into gold. North Dakota could learn something from this. We are getting very rich, but I wonder what the ultimate meaning of it all is. Three points:
    a. First, why has government allowed the unplanned and rushed development of oil in the State? It is pretty clear that the social and physical infrastructure and fairness for landowners was not considered to extract a one-time harvest. As a result of this rush, many people have suffered very greatly. We have seen people in tears on more than one occasion. Some lands have been ruined, possibly forever. A great amount of other resources have been wasted; including flared natural gas.
    b. Second, leaders have expressed support for "all-of-the-above" energy development, but we have only developed 15% of our wind potential in the State.

c. Third, we feel that the federal role in monitoring and regulating the industry is extremely necessary in our State. We want federal involvement because we feel the State has not done it.

Public Commenter Name: Linda Weiss
State: ND
Commenter's Main Points

1. I am the current Chair of the Dakota Resource Council. Considering the dangers of pipeline spills and train explosions, this is a time for a strong federal presence and leadership to move forward in a more responsible way.
2. You can offset the waste of flaring by building more turbines to pull the money back out of the air.
3. State officials choose to drill as fast as possible rather than taking time to prepare. Slowing down is necessary.
4. We need preplanning to make a smaller footprint, and allow better engagement of land users.

Public Commenter: Vicky Steiner
State: ND
Commenter's Main Points

1. North Coast Association of Oil and Gas producing counties received a $1.5 million grant from the U.S. Department of Housing and Urban Development 3 years ago. We were able to do local planning sessions with that money and we did a regional plan on all 10 issues. And as we went through our local plants, five top issues were developed and that is available on www.visionwestentity.com. The issues are: housing, transportation, emergency services, childcare, and water. We have 200,000 more people moving to Western North Dakota, and the Army Corps of Engineers has not updated its plans for this and recreation resources are taxed. Law enforcement is needed for drug prevention. I recommend that the federal government have someone come to North Dakota for training rather than sending people to Baltimore.

Public Commenter: Jan Croen
State: ND
Commenter's Main Points

1. We would like something to help us with the rail road. In Vision West, we are trying to get a central corridor that is currently interrupted by the Garrison Dam, and we have to go all the way around it to get anywhere. One of the ideas presented is a ferry, but for us it will take some getting along with whoever controls the dams and the water. These are efforts that could maybe come from U.S. Department of Transportation or the U.S. Department of Interior.
2. Applications for affordable housing do not work here. The income of the folks puts them out of reach of financing for the housing that is being built here. They cannot get financing because they fail on the application. That is a stumbling block, because we want people to stay.

Public Commenter: Leroy Balinger
State: ND
Commenter's Main Points

1. I am concerned about social policy. Everything is rush, rush, rush, get more and more, but there is no reference to "I'm 80 years old, served in the Army 23 years, I'm working and have to pay other people coming in for energy and we aren't taxing the oil companies." Why should I be paying for schools and all that at 80 years of age? It is not fair for old people. It is not so wonderful for the poor and the working, fixed-income people. I know we need energy for the security of the country that I love, but we have to do something for the people who do not have those rich jobs.

Meeting Conclusion

DOE's Matt McGovern expressed appreciation to everyone who took the time to present their views and participate in the process. He announced the next series of meetings can be found at www.energy.gov/qer.

Mr. McGovern mentioned that the panelists' written statements from the meeting will be posted on the web within the next 24 hours.

He recognized the hard work of the DOE and Energetics Inc. staffs, thanked the panelists and attendees, and the he adjourned the meeting.

To provide written comments to the process please send all emails to: QERComments@hq.doe.gov.