Summary of Presentations and Comments
At the
Quadrennial Energy Review

Stakeholder Meeting #11: Cheyenne, WY
Infrastructure Siting
August 21, 2014

Opening Remarks

Dr. Karen Wayland, Deputy Director, Energy Policy and Systems Analysis, United States Department of Energy

This year, President Obama issued a Presidential Memorandum directing the Administration to conduct the first-ever Quadrennial Energy Review (QER). The QER is an inter-agency process which will outline recommendations for federal energy policy to ensure that our energy network and systems continue to provide affordable, clean, and secure energy that is essential to the U.S. economy. The Presidential Memorandum includes a paragraph that specifically directs the U.S. Department of Energy (DOE) to conduct extensive stakeholder outreach. One of the main reasons we came to Wyoming is because of all the good work that

is being done in Wyoming in terms of siting. Governor Mead, thank you very much for all your work in energy. As you all know Governor Mead was sworn in as Wyoming's 32nd Governor in January of 2011. The Governor was raised in a ranch and went to law school, practiced private law, and was the Wyoming Attorney General before being elected Governor. He has a significant role in developing our energy strategy. So, Governor Mead, we look forward to hear what you have to say.

The Honorable Matt Mead, Governor of Wyoming

Main Points:

1. I was pleased to hear that the reason you in Wyoming is because of the great work we are doing. I welcome all of you and I am delighted to have the Secretary of Energy here in Cheyenne. As you know, we consider ourselves "the energy state." We export more energy than any other state; we are the number one state in coal, number one in wind power production, top-ten in oil and gas production, and number one in helium and other minerals. So, when we think about Wyoming and what we want to do in the State, our strategy is to help our energy, our economy, and our environment because we recognize that all three are inseparable.
2. There is always room for improvement and we want to work proactively for our future. We recognize that the challenges for the future are centered on how we grow. We are developing an energy atlas. We have to work with the federal government to make this happen.
3. We know that we have great opportunities in Wyoming. We are proud of the fact that we supply coal to so many states and proud of where we are trying to go; to an integrated test center.
4. We have had a great working relationship with the U.S. Department of the interior. Thank you for being here. Thank you to the rest of the audience for being here as well. I enjoyed having some time with you this morning to discuss these issues.

The Honorable Ernst Moniz, Secretary of Energy

Main Points:

1. I co-chair the group that made the recommendation to the QER. It is great to be here in Wyoming. Our view is that when we talk about energy policy and infrastructure, it does not make sense to think of a national one-size-fits-all approach. Our challenges and opportunities are very regional. Therefore, we are making an effort to have these meetings, focused on regions that have something important to offer. It is really very important for us to get your input.
2. The QER was put forward last June in the President's Climate Action Plan. The implications of it cut across all our energy issues. The motivation for the way we are doing this as a multi-agency initiative is significant because several departments have a stake in how we develop our energy policy and work on energy issues. Therefore, the White House and the Office of Science and Technology Policy chair the overall effort, but DOE has a role to bring major analytical assets to the effort.

3. The President has a clear message about an all-of-the-above strategy. The low-carbon energy future is going to look very different in different regions. Therefore, in the DOE, we are making major investments across the board. We are making investments in renewables and also fossil fuels. We are making major investments in carbon capture. The key driver of all these programs is cost reduction. As we drive to a low-carbon future, cost reductions are a major driver and we are having great success across the board. That is the big picture of what we are trying to do. We are focusing specifically on the infrastructure challenges that we have seen in the last few years, such as from storms, cyber threats, transportation bottlenecks, etc. For example, we went to North Dakota two weeks ago and as you are aware, in that part in the country there is significant competition for rail.
4. Good data is very important. We have an inter-agency process to identify cross-agency data gaps, which is going to be an important part of this effort. The third panel today will discuss that issue.
5. Finally, I want to return briefly to the issue of climate challenge. It is an important part of our goals. The challenges lying ahead and the importance of adapting in the future are significant. No part of our country will escape the effects of global warming. The impact of global warming is unmistakable. We will continue to develop our energy resources, the economy, and jobs, with innovation, policy, and relationships between federal and state governments.

The Honorable Janice Schneider, Assistant Secretary for Land and Minerals Management, U.S. Department of Interior

Main Points:

1. I appreciate the opportunity to participate in today's session. It is a pleasure to be here. Later today we will be visiting a coal mine and I am interested to see what is happening on the ground. I want to acknowledge the work that Governor Mead is doing to supply energy to the country. He is truly a leader in this regard. I want to acknowledge Secretary Moniz in his role to support the President in his goals in energy security and protection of the environment.
2. I wanted to be in this session because of its focus on infrastructure siting and to acknowledge and recognize that this is not an issue that the federal government can address alone. This has to be an integrated effort with all stakeholders, including local communities and tribes. In order to get these projects done well, we have to collaborate and work with local interests. Pipelines cross political and social boundaries. We have to plan ahead together and when we do that, we can make much better and smarter decisions that can benefit all of us.
3. I would like to hear what you think the U.S. Department of the Interior (DOI) can do to do a better job. DOI plays a major role in the President's all-of-the-above energy strategy. We are the largest federal land manager in the West. Wyoming is an all-of-the-above energy state, with its abundance of oil, gas, coal, wind, uranium, and other abundant mineral assets. The amount of opportunities here are truly incredible. The

people of Wyoming feel strongly that we have to protect the environmental resources while developing the energy resources.

4. We administer about 17.5 million acres of public land here in Wyoming. We are doing a lot of work on mineral leasing as well as mine-plant development for minerals. We are also working on the renewables energy area. All this energy development needs transmission and pipelines to get the energy to the right place and those are some of the most challenging energy projects to develop because of the host of issues that they raise as they span hundreds of miles.
5. We play a vital role in the President's Rapid Response Team for Transmission (RRTT). Since 2009, we have approved 2,300 miles of large transmission projects on public lands. We are working on some big ones here in Wyoming. As mentioned earlier, it is important we do this in a smart way. In order to be successful we need to work together and I am looking forward to hearing from you about what we can do better.

Panel I: Electricity Transmission, Storage, and Distribution: Federal, State, and Local Permitting and Siting Issues

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

Presenter Name: Mike Easley
Affiliation: Chairman, Infrastructure Authority, and Chief Executive Officer, Powder River Energy Corporation

Main Points:

1. President Obama's memorandum states that a comprehensive energy strategy is required and I could not agree more. I want to spend my time talking about alignment. In 2009, the U.S. Department of Energy and eight other federal agencies entered a Memorandum of Understanding (MOU) to improve coordination. The MOU

led to the formation of the RRTT. People worked very hard to move the ball forward, but things could have been better. The TransWest Express Transmission project is 30 months behind schedule. The project was identified as a priority project, supported by the RRTT. The Gateway West project has experienced multiple years of delays as well. The project is in its eighth year of federal permitting. I hope this is not the best we can do with permitting and building regional and state transmission lines.

2. We also have issues permitting for distribution facilities. In May, I appeared before the House of Representatives Oversight Committee on Natural Resources. Witnesses presented compelling testimony about the challenges and requirements related to obtaining power line easements on federal land and coordination among federal agencies. The lack of progress since May on that issue is disappointing to all electric cooperatives of the region.
3. Our needs to obtain permits to site, construct, and maintain electric infrastructure has never been greater. Our ability to do so has never been more doubtful due to new and existing federal regulations and initiatives that are often misaligned or even conflicting. I hope the QER process will point out that we need alignment and leadership. Call it organizational alignment, call it strategic alignment, but a compelling vision is needed. We must create a system that is capable of executing that mission and all system parts understand that mission. There must be clear objectives and goals that support the mission. The goals must be measurable. Every federal agency should understand their objectives. We should not allow activity to be our measure and we should insist on results and accountability.
4. I would suggest you look at Wyoming's energy strategy and the State of Wyoming as an example on how a system of strategic alignment can execute a strategy.

Presenter Name: Rick Thompson
Affiliation: Senior Manager, Transmission Land Rights and Permitting, Tri-State Generation and Transmission Association

Main Points:

1. We have direct experience siting and permitting and have vested interest in any efforts designed to streamline the process. We are very appreciative of the DOE's and DOI's efforts to streamline transmission siting and permitting processes, over the last few years. We think the US. Department of Agriculture should be here as well. The continued dialogue on the topic is helpful and educational to those new to this subject area. When the opportunity arises, we are looking forward to providing input.
2. In 2012, we responded to DOE's RRTT and Integrated Interagency Pre-Application Process (IIP) Requests for Information. In our response to RRTT, we discussed the need for coordination among federal agencies and the need for consistency in federal land plans. In our response to IIP, we highlighted that the pre-application process proposed added time and duplication to existing National Environmental Policy Act (NEPA) approval processes, and we believe the direction should focus on improving existing programs and processes.

3. Federal policies and decisions are impacting siting for new transmission in our service territory. We are seeing new exclusion areas being created by potential threatened and endangered species designations, new national monuments, federal conservation easements, tribal issues, etc.
4. In June of 2012, former Secretary of Interior Ken Salazar approved the largest conservation easement in U.S. history, which created a roadblock for a project that would have provided a transmission path for renewable energy projects nearby.
5. We are seeing confusion with our constituency over private transmission proposals versus incumbent utility load-serving projects. We ask those that are in private development to make sure they are communicating effectively about their projects and how we interact with the incumbent transmission projects.

Presenter Name: The Honorable Tom Sloan
Affiliation: Kansas House of Representatives, on behalf of Council of State Governments

Main Points:

1. The Council of State Governments (CSG) has developed an interstate high-voltage transmission siting Compact (Compact). The Compact provides a firm timeline for hearings including decision making hearings. CSG staff convened state legislators, regional transmission organizations (RTO/ISO) staff, environmental advocates, electric utility transmission operators, state regulatory agencies representatives, and other key stakeholders over a two-year period. The Compact's language:
    a. Includes language for streamline siting filing period, hearing, public input, and appeals processes for proposed multi-state high voltage electric transmission lines;
    b. Addresses the Energy Policy Act of 2005 language enacted by Congress that provides states may avoid federal backstop siting practices if the states form one or more compacts;
    c. Provides a framework through which regions may address grid reliability, economic development, movement of energy to meet the Environmental Protection Agency's (EPA) clean air standards; and
    d. Provides a clear mechanism through which federal agencies and tribal governments can participate as equals with states in evaluating proposed electric transmission routes and in the decision-making processes used to determine whether an application is approved, approved with changes, or rejected for cause.
3. The Compact provides a firm timeline for hearings in each state before the appropriate officials, public hearings at which citizens may provide information, decision-making, and establishes a common record for administrative and judicial review. The Compact also clearly establishes that decision makers shall consider regional and national energy needs when evaluating the value of a proposed transmission line. We are open to modifying the Compact language.

4. There are other infrastructure opportunities that DOE may or may not be actively supporting. Many times DOE is accepting applications for funding and they may do a better job of driving public policy and investments by identifying opportunities in specific areas.
5. The country of Iceland had a competition for engineers to design new types of transmission structures. We encourage DOE to have a similar kind of competition, in an attempt to reduce impact as transmission line cross federal lands.
6. The DOE's Electricity Advisory Committee's Subcommittee on Energy Storage and the full EAC recommended DOE explore, with the private sector financial community, ways to "insure" new technologies' performance. Public Utility Commissions are reluctant to approve storage or other new technologies due to risks of failure or costs to consumers. We think that there are ways to address that.

Presenter Name: Johnathan Hladik
Affiliation: Senior Policy Advocate for Energy and Climate Policy, Center for Rural Affairs

Main Points:

1. About four years ago there was one slightly organized opposition group in the upper Midwest, and today there are six-12 organized anti-transmission groups. To us, this deserves attention.
2. As we sit here today thinking about how renewable energy providers can overcome siting obstacles, we think a big part of that needs to include public engagement, which should happen at a localized level. We are big believers of the idea of making changes to the institutional process. We found a fair amount of success through action alerts and local media pieces that talk about transmission projects in a way that we may not often talk about it.
3. Regarding education, we have a transmission database which covers the 15 to20 transmission lines currently under construction. In the database, we provide the absolute basic information. We talk about the developer, what the line looks like and how far it is going to go, and how the line is going to open up in rural areas. The database also provides the foundation for a series of fact sheets. We are able to put these fact sheets in the hands of decision makers, such as elected officials, as well as the media, and other people on the ground.
4. Another part of our education work involves white papers. Grassroots leaders seem to appreciate white papers. In one paper we released recently, called *From the Ground Up,* we looked in our database and pulled over 300 news articles, we analyzed them and we identified six clear-cut concerns that each community has every single time. These community concerns include: agriculture, conservation, eminent domain, health, and transparency. We then developed best practices to address them. Some of these best practices include engaging landowners early, improving online presence, explaining the regulatory process, and using mitigation strategies, and compensation methods.

Presenter Name: Michael Cashell
Affiliation: Vice President - Transmission, NorthWestern Energy

Main Points:

1. Siting of linear facilities is one of the most complex issues I have ever dealt with. I will focus today on two projects; one of which was a failure in siting, and another one which was a success story.
2. Montana exports lots of things including energy. Wind generation is popular and significant but there are lots of challenges in developing wind generation, including the infrastructure to move that generation. In 2006, we embarked on a project that would have gone from Southwestern Montana to South-central Idaho. The project was intended to carry 1,500 MW of electricity, and 450 miles in length. The public siting review process started in 2007. The project was estimated at $1 billion in costs. The purpose of the project was to provide a pathway to renewable energy generated in Montana to the Western United States. The following were the challenges of the project:
    a. Underestimated the public opposition to this project
    b. The ever changing scoping process
    c. Lack of cooperation and coordination among the agencies
    d. Sage grouse
    e. Changes in the economic climate for renewable energy

   After 4.5 years into the regulatory process, a lawsuit was filed in 2010 by Jefferson County, Montana against Montana Department of Environmental Quality for failure to adequately consult with the county, which resulted in an 18-month delay. After 50 months of analysis and over $24 million in overhead costs, we called the project off.
3. A success story was a project that went from Bozeman, MN to Big Sky, MN. It went through an environmental impact assessment and went through the construction process, so I just wanted to highlight successes as well as challenges.

Presenter Name: Richard Loughery
Affiliation: Director, Environmental Activities, Edison Electric Institute

Main Points:

1. The Edison Electric Institute (EEI) and its member companies encourage the federal government to continue efforts to substantially improve the transmission permitting process for energy infrastructure. EEI commends the Administration for initiatives in recent years to improve the siting and permitting of energy infrastructure. However, more work needs to be done. Obtaining federal permits for the facilities has become more difficult and time consuming.
2. While interagency coordination and cooperation has somewhat improved at the federal agencies headquarters level, it is still lacking at the local level where many of the siting and permitting decisions are made.
3. The electric utility industry needs the cooperation of the federal agencies in order to meet its mandatory reliability requirements by both the Federal Energy Regulatory Commission and the National Electric Reliability Corporation. EEI is working with

federal land management agencies on a renewed Memorandum of Understanding for utilities to have timely access to perform vegetation management on public lands.

4. The proposed Environmental Protection Agency and Corps of Engineers "Waters of the United States" (WOTUS) rule could trigger substantial additional permitting and regulatory requirements under the Clean Water Act. The pending Endangered Species Act (ESA) listing decision for sage grouse has major implications for the siting, operation, and maintenance of power lines in the species' range. Beyond the sage grouse listing decision, there is a significant increase in other ESA listing decisions and critical habitat designations which have the potential to further impede the siting and maintenance of power lines. The process for obtaining and renewing rights-of-way on Indian land also raises a number of challenges.
5. In conclusion, our society is demanding more and more from the nation's electric grid. We want more options for how we use electricity. Reliability must be ensured. Electricity must be affordable. We want it to have minimal impact on the environment. To accomplish this, we need to improve how we site, permit, and maintain this critical infrastructure. Electric utilities and their customers, along with federal, state, and local government agencies must work as partners to make this happen.

Panel Questions and Answers

Q: One of the suggestions we heard from Representative Sloan is to consider regional compacts. Is that a way to better our collaboration for siting and permitting, or do you have other specific recommendations on how to better collaborate?

Mike Easley

- Regardless of whether it is a compact, memorandum, or a special team, if you cannot clearly define what it is supposed to do, if you cannot clearly define the responsibilities, give that group the actual authority to accomplish what it is responsible for doing. If you do not provide them the resources to execute the authority or deliver on that responsibility, it does not matter what you call it, but it will not work.

- Within the context of siting permitting, we have to figure out a way for people to agree on what needs to get done and give people the resources to meet their responsibility and authority. That is something that federal employees can help with.

Rick Thompson

- We agree that regional collaboration is always a good thing. In our world it is even more important that policies and laws implemented are consistent across agencies. We see different interpretation of laws, which creates complications on how we conduct our business. If we bring transmission to a local cooperative distribution system, we have to obtain local approvals, and local approvals are just as important as the federal process. Until you get consistency, it is very difficult to achieve progress. We feel that local offices

are hamstrung. They really have good intentions but it is difficult to get them to move on time.

Tom Sloan

- Compacts are recognized by Congress as a way in which agencies can work together. A good example is the Great Lakes Compact for water quality. That Compact specifically recognizes that issues are regional. It specifically states that federal agencies and states are bound by the terms that are ratified. It is a way to get around the problems that exist.

Jonathan Hladik

- I agree with the general sentiment of Mr. Thompson's comments. As we all know, siting crossing state lines adds a lot of costs and delays to our projects. However, there is a tradeoff; land use has been historically localized for a very important reason. So, when we talk about streamlining the permitting process, it is very important that we do not forget what is happening on the ground to the people that are affected by transmission lines. Transmission is not a sexy or interesting topic, but providing education can take us very far.

Michael Cashell

- Cooperation among agencies is indeed very important. It is not always clear who is calling the shots.

- Regarding questions about public opposition, one of the things we did is form a group called the Mountain States Transmission Intertie (MSTI) Review Group, which was made up of NorthWest Energy and non-governmental organizations. It looked at the transmission siting path in a cooperative, parallel process. If we had done that earlier, results could have been different for us. It is important to get out front of the public opposition process in the early stages of the project.

Richard Loughery

- Regional compacts make a lot of sense. The Eastern Interconnection is very different from the Western Interconnection. There is a much stronger coalition of the Western states working together. In the East, the challenge is that you have much smaller states and it becomes a problem with states that do not see the benefit of the transmission lines. It is a tough challenge.

Q: What one recommendation would you have for the Secretary of Energy for consideration in the QER?

Richard Loughery

- Mr. Secretary and Assistant Secretary, I wrote my verbal comments as if we were having a conversation. I hope the QER process has an opportunity to make an impact and I hope the QER process can find a different way to look at things.

- I believe the stakes are high and we are going to need infrastructure. Instead of telling you what to do, I would like to offer my assistance. Powder River can be helpful and more than happy to provide you with comments. It will be helpful to convene a panel like TransWest Express to discuss specific questions and answer them in a public forum, which may provide transparency that is beneficial to the QER process.

Mike Thompson

- I will make a couple of suggestions for QER consideration:
  - Consistent implementation of the National Energy Policy Act from Washington to the field offices. These projects take years.
  - Budgeting for infrastructure is important.
  - Consistency with prioritization across DOE, DOI, and the U.S. Department of Agriculture.
  - The public needs to know specifics about transmission. The public does not always understand how that works.

Tom Sloan

- In addition to recognizing the regional and national energy needs considered by a regional compact, it would help state Public Utility Commissions, other state offices and federal agencies if they recognized the big picture. The compact language could be modified. We need cooperation regarding public lands.

Jonathan Hladik

- Our organization was part of the Eastern Interconnection Planning Collaborative (EIPC) process. There are things that could have been better about the process and things that worked very well.

- When we talk about transmission today, it is very different than when we talked about transmission historically; we need more lines in different places for different reasons. I mentioned the EIPC because a task force model that brings a variety of people to develop recommendations could be quite an asset. The federal government could step up and facilitate that conversation.

Michael Cashell

- Rather than an open ended process, there needs to be a streamlined process with milestones. Better cooperation is needed at both the federal-state level, as well as coordination with other states.

- Many consultants at agency levels have no electric or gas transmission experience. Consider adding that kind of experience to your teams.

Richard Loughery

- My recommendation is for DOE to act on the Energy policy Act of 2005 recommendations for coordination.

- My other recommendation is for all agencies to somehow get these national priorities down. They have to see the big picture.

Panel II: Oil and Natural Gas Infrastructure: Federal, State, and Local Siting and Permitting Issues

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

Presenter Name: Kathryn Clay, Ph.D.
Affiliation: Vice President, Policy Strategy, American Gas Association

Main Points:

1. Natural gas delivery companies share the goals expressed by the President in his memorandum and call to action to modernize infrastructure permitting.
2. Natural gas delivery companies work with federal, state, local and tribal entities to obtain necessary permits and authorizations for this work. Unfortunately, many permit processes impose cumbersome and impractical requirements and too often

the multi-agency resource reviews and consultations cause frequent and unanticipated delays. The federal government can play a critical role in coordinating and modernizing permitting processes so that natural gas infrastructure can be modernized, maintained, and expanded.

3. We urge the Administration to pursue policies that include the following five dimensions:
    a. Demonstrating leadership from the federal government by encouraging federal agencies to lead all reviews that involve authorities from multiple levels of government, and improving enforcement of review deadlines for all agencies and authorities.
    b. Giving priority to highly-significant projects, such as those which address pipeline safety. The reauthorization of the Water Resources Development Act (WRDA) provides a notable example.
    c. Moving away from a "one size fits all approach" by establishing special permitting processes for specific categories of natural gas pipeline projects, such as emergency work, replacements and repeat projects in existing easements, and routine work.
    d. Providing consistency across regions. For example, across districts administered by the Army Corps of Engineers
    e. Considering federal-level adoption of innovative state approaches, such as fee programs, liaisons, and other models for expedited and prioritization of reviews.
4. Another pressing issue with great consequences for energy infrastructure investments is the recent rulemaking by EPA to revise aspects of the definition of WOTUS. We are concerned that the current proposed rule will not provide regulatory certainty that natural gas distribution companies need to conduct normal operations at a timely and cost-effective manner.
5. In closing, we thank and applaud DOE for its leadership in bringing attention to the critical issue of energy infrastructure and permitting. I think you for the opportunity to participate in the Quadrennial Energy Review.

Presenter Name: Brian Rutledge
Affiliation: Vice President of the National Audubon Society, Policy Advisor Central Flyway, Audubon Rockies

Main Points:

1. When you talk about infrastructure siting, it is important to recognize that it is not only about the issue that you are facing and getting the product to your consumer, but it is also about what you leave behind for your grandchildren.
2. The reason Wyoming has a heads-up on other states is because of leadership. We have had a succession of very aggressive governors who saw the need to plan for the future of more than the gas and oil economy. They have also planned for Wyoming's recreation economy, such as fishing and ranching. This shared vision involved calling on leadership throughout the industries that make use of public lands, and they were

all brought to the table to work together with an absolute direction and a plan. This anticipated the changes that are now being contemplated about the sage grouse. There is an opportunity for industry to be a part of this positive change.

3. There are three species of birds in the sage grouse ecosystem, which face demise much more quickly than the sage grouse. We have lost 50 percent of the sage grouse habitat in the last 100 years and we lost 95 percent of the sage grouse that previously occupied that land.
4. We can have industry push the Governor not to collaborate or cooperate, or we can be part of the solution, and it seems to me that is a far superior role. I would recommend that anyone who wants to be a part of this get involved and do something about this issue.

Presenter Name: Michael Olsen
Affiliation: Senior Director, Statoil North America

Main Points:

1. Statoil is very interested in ensuring that production gets from the field to market and that regulatory and permitting processes work as efficiently and effectively as possible. Permitting delays can be costly, particularly in the oil and gas business, where projects are large and compete for funding.
2. We want to share some views the government can take to improve the permitting and siting process. In our experience, delays in permitting primarily come in three forms: delays from lack of inter-agency coordination, delays from disproportionality, and delays caused by litigation.
3. Recommendations to address lack of coordination are the following:
    a. Enter into an interagency Memorandum of Understanding (MOU) or similar commitments to coordinate decision-making among multiple federal agencies. While not restricting agency discretion, these MOUs establish specific expectations for the agencies involved. For example, MOUs could:
        i. Provide specific timelines for approvals and responses, along with minimal, but substantive, penalties for missing those timelines.
        ii. Provide protocols for the elevation of interagency disputes (at the district or regional level) to senior policymakers within those agencies.
    b. Enter into MOUs with the key states where there is significant duplication and delay. In California, for example, the Administration negotiated an MOU with the State regarding their environmental review processes.
4. At times, the first energy project of a particular type can trigger a massive impact analysis that is wholly disproportionate with the project's scale and purpose. This impedes early adopters, pilot projects, and development of efficient energy resources. There are a couple ways to address these delays:
    a. Permitting agencies could adopt additional, and more nuanced, Categorical Exclusions (CEs). The Administration, with public input, could identify circumstances when even large projects are unlikely to cause a significant

adverse environmental impact and therefore would not require NEPA analysis.

b. The Administration could also undertake programmatic Environmental Impact Statements for policy-level decisions. The NEPA process can result in duplicative and uninformative analysis that bogs down environmental reviews and provides additional handholds for litigation.

Presenter Name: Tad True
Affiliation: Vice President, Belle Fourche Pipeline

Main Points:

1. Pipelines are the safest, most efficient mode of transportation for liquid fuels in the world.
2. I want to start with a project that we consider a great success. About five years ago, we commercially contracted and started working on a project in the Bakken oil development. We went through the state siting permit process and the geological and archeological filings. Within a year and a half, the pipeline was up and running. Today that pipeline is full, transporting about 110,000 barrels a day, and by our estimate, it has taken 300 trucks per day off of U.S. Highway 85 and North Dakota's Highway 22. If you convert that into miles, it is equivalent to 25 million miles of trucking. We would like to replicate that success. However, that type of success is becoming more and more difficult, because of federal permitting.
3. Another example is a project called Butte Loop. In that project, we proposed to build a new crude oil pipeline parallel to an existing line, and we knew the route crossed federal land. Because of our experience with the Bureau of Land Management (BLM) we knew the permitting process should take 6 months. Overall, we went from a simple project using an existing corridor (and recently completed federal analysis expected to take 6 months for approval) to a full-blown environmental impact analysis and a 2 ½ year delay. These federal permitting delays and additional requirements forced us to abandon this new pipeline project and shift instead to a simpler project replacing our existing Butte pipeline with a larger capacity line. The revised project involves our existing permit. We hope to have the Butte Expansion project online later this year, two years after the original Butte Loop project was expected to come on line with less operational capabilities than originally designed to serve our customers.
4. My three suggestions are the following:
    a. Timeliness, with more resources for the agencies
    b. Common sense decision making
    c. Certainty of the regulatory process.

Presenter Name: Brian Jeffries
Affiliation: Executive Director, Wyoming Pipeline Authority

1. The Energy Information Administration data shows that if Wyoming was a foreign country, it would be second only to Canada as a foreign source of energy to the United States.
2. If you take into account the natural gas production in Wyoming from 1993 to the present, and the price difference for gas in Wyoming and Louisiana, then the resulting loss in production value is equivalent to $32 billion due to a lack of pipeline infrastructure. For the State of Wyoming, that represents a $5 billion loss in taxes and royalties.
3. Other products to consider in Wyoming include carbon dioxide and petroleum pipelines. In 2009, the Wyoming Pipeline Authority and the Enhanced Oil Recovery Institute at the University of Wyoming jointly developed a hypothetical carbon dioxide (CO_2) pipeline grid that would serve the anticipated future demand to move carbon dioxide from a variety of sources to destinations comprised of enhanced oil recovery opportunities and sequestration. The results of the study show that the CO_2 pipeline could be built and work. However, we found that the corridors often fail to match between the BLM field offices and in some cases are completely disconnected from any other corridor. The mismatched corridors represent an impediment to the efficient and thoughtful development of pipeline infrastructure in Wyoming.
4. As part of Wyoming's energy strategy, the Wyoming Pipeline Authority filed an application for a comprehensive set of corridors in Wyoming for CO_2 pipelines.

Panel Questions and Answers

Q: Today, we heard that: reviews are disproportionate, sometimes triggering NEPA; that we need to need to move away from a one-size-fits-all process; that we need to include all players in this process, including ecosystem representatives; and that comprehensive applications may work and they speed up the process. Can you talk about other gaps that exist or lessons learned you would like the QER Task Force to consider regarding oil and gas permitting and siting?

Brian Jeffries

- The ability to have a single agency manage and have siting authority for a project across state lines was absolutely essential for the success of natural gas and needs to be seriously considered for future projects.

Katheryn Clay

- One aspect of good public policy is the premise that you cannot change what you do not measure. Sometimes deadlines are not met. One innovative idea is that the federal government could bring some sunlight by instituting an agency score card for the success of meeting deadlines in the permitting process. Federal leadership could show us the

way. We could begin the process with federal agencies that have resources, and then use that as a model for state and local permitting.

Brian Rutledge

- We need to recognize the speed with which we expect change and the complexity of issues we face. There have been 6.5 issues per application contingent with sage grouse. The fact is that we have seen the science change dramatically in the last few years.

- The press delivers polarities. They start way off to the far-end of conservation, or way off to the right of industry. Somewhere down the middle is the work that is being done by the majority of us, including the agencies. We are facing these issues as they arise. We seldom have the liberty to do the studies necessary to reach concise conclusions. We can work together to find ways to better resolve these issues.

Michael Olson

- FERC has traditionally done a good job in taking the lead on NEPA analysis, consulting with other agencies, setting deadlines, and playing a strong leadership role.

- My recommendation is to look at some of these things and make them more institutional and more engrained in the decision-making process.

Tad True

- Everything that has been said here is good, especially what has been said about addressing timeliness.

- I also want to stress that even when dealing with a single agency, you need to be able to delegate authority, primarily because there is no one-size-fits-all solution. We have to look at what makes sense for each specific project.

Q: Is there a need for changing jurisdictional boundaries? Is that possible in this industry? Is it a good idea or do agencies just need to expedite their processes?

Kathryn Clay

- Our membership represents distribution companies. So, by nature, we are looking at more confined territories. So this is not a priority for our industry as perhaps, it is for others.

Brian Jeffries

- Coming up with a more formal process is difficult, off the top of my head, because how do you get all the appropriate stakeholders involved? If you miss one, the formal process would fail.

Tad True

- A good thing I saw come out of our process is that we were crossing a state border with four offices involved. One office decided to take the lead and things worked well. I think that is a good example of how to deal with inter-agency challenges.

Brian Rutledge

- It is important to maintain the same standards across jurisdictions when dealing with more than one species.

Q: What would be the one specific recommendation that the QER Task Force should include in the report on infrastructure?

Brian Jeffries

- Given our experience identifying that corridors did not match the field offices, and we only looked at Wyoming. I would suggest that someone look into whether that is an issue in other states as well.

Kathryn Clay

- My first response is to develop an agency score card to hold agencies accountable for the timeliness of their responses for permitting deadlines.

- A very innovative approach that began at the state level is allowing private companies with applications for permits to offset the cost of that permitting process to help agencies prioritize projects.

Brian Rutledge

- I would ask for continued and heavy engagement getting plans done across eleven states, and make them communicable so that people on the ground understand where they are and see leadership.

- I would also want to clear-up how things are going on the Wyoming front. We reduced conventional drilling by 60 percent but we have increased horizontal drilling by almost 1,500 percent.

Michael Olson

- I encourage the Administration to continue the dialogue with stakeholders and continue to meet with everyone, across the board. I really appreciate having the Assistant Secretary and her staff here. It is incredibly helpful to know you are interested in hearing from us.

Tad True

- I would like to clarify my goal. I want to be able to take my kids hunting, fishing, etc. But I also want them to be able to drive a car and have affordable energy. Our goal is to eliminate the uncertainty and confusion in the permitting process.

Q: Does anyone have any final thoughts for the QER Task Force?

Brian Rutledge

- I would like to encourage some of the suggestions Representative Sloan made about developing competitions to increase and improve technology. In particular, I would encourage competitions regarding renewable energy development.

Kathryn Clay

- I touched briefly on the Waters of the Unites States rule. I wanted to express our appreciation to EPA for their decision to extend the comment period. It is another example of the Administration really taking the stakeholder process seriously and it will allow us to have a more meaningful engagement and analyze the rule. The rule is very relevant to natural gas utilities and we need to get the language right.

Panel III: Data Needs, Mitigation Methods, and Tools for Siting and Permitting

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

Presenter Name: Pam Eaton
Affiliation: Senior Advisor, Energy Campaign, The Wilderness Society

1. The pace, scale, and intensity of energy developments in the West is having a profound impact on our communities, wildlife, and water. We need to meet the challenges of climate change, minimize these impacts, and do a better job on how we site and develop energy infrastructure. In that way, we can have the changes that we need but also protect the things that we care about and need.
2. I want to talk about how we can move forward in developing infrastructure in a way that avoids, minimizes, and mitigates impacts to environmental and cultural value.
3. We need to get information about environmental considerations and risks, and corridors that will be needed, much earlier in the process of the project. I have been involved in a few processes with the Wilderness Society and other non-governmental organizations (NGOs) with the representatives of the energy sectors, to try to develop these changes.
4. I want to focus on one process, which is the Decision Support System Tool. The DOE has been encouraging the development of such tools, which bring together geospatial information, nature status, landscape attributes, and other features. The idea is to help decision makers understand the risks, tradeoffs, and values, and make better decisions. One place that it is being used is at the Western Electricity Coordinating Council (WECC). Today, WECC has one of the best tools and databases for looking at the region at the planning scale, at environmental risks, and opportunities that face the development of corridors for transmission. We do have the opportunity to change the way we are incorporating and thinking about these issues and we need to do it much earlier.
5. The Department of the Interior is doing a revision of its mitigation strategy, taking a landscape-scale approach to identify where infrastructure can go.
6. I want to say that some of this needs to happen by changing the way we use infrastructure and reducing the barriers, reusing our corridors and existing infrastructure.

Presenter Name: Chris Scolari
Affiliation: Policy Advisor, Western Governors' Association

1. First, I will discuss the Crucial Habitat Assessment Tool (CHAT). It is a non-regulatory GIS-based tool that displays the best available maps of crucial wildlife habitat across 16 Western states, based on commonly agreed upon definitions developed by the Western Governors' Wildlife Council. The CHAT provides a "30,000-foot" overview of crucial habitat for pre-planning. It could be used for "macro-siting" energy corridors and transmission routes, or conserving fish and wildlife habitat. CHAT makes state wildlife data easily accessible for energy, transportation, land use, and conservation planners in order to inform land use decision making. The Western Governors' Wildlife Council created the definition of crucial habitat and decided the categories of data that would need to be "rolled-up" into a crucial habitat dataset. That includes

everything from fish and game habitat to connectivity between habitats to species of concern.

2. A survey of users shows that the CHAT is primarily being used for conservation purposes, energy development, and wildlife management. The Crucial Habitat dataset is downloadable so users can put the information into their own GIS software and use it in conjunction with other datasets. The state and regional CHATs are non-regulatory and cannot be used for project-level reviews. CHAT provides access to state wildlife agency scientific data on a broad scale for use in initial project assessment, siting and pre-planning.
3. The Western Governors' Association (WGA) is currently seeking a long-term host for the CHAT through a Request for Expressions of Interest (REOI). This host will work with WGA to define what the future of the CHAT looks like. We expect the states will still have an active role in maintaining and improving the CHAT. The REOI is open through August 29, 2014.
4. We have an additional tool called the Regulatory and Permitting Information Desktop Toolkit. This will be an online database for siting transmission projects. It will have roadmaps and tell users where to go and who to talk to, Memorandums of Understanding, and more.

Presenter Name: Jeff Hamerlinck, Ph.D.
Affiliation: Director, Wyoming Geographic Information Science Center, University of Wyoming

1. The impact to geography is an important factor. We talk about the pillars of sustainability (economic, societal, and environmental) often portrayed as a Venn diagram, but another way to think about this is in a "nested" way. It is not just about location (geography), but also about what is going on in that particular place.
2. Spatial data infrastructures need to be built and maintained. At the national level we have had the National Spatial Data Infrastructure (NSDI) for twenty years. We need to expand collaboration among federal agencies and the state and local entities. This has been a challenge with NSDI.
3. One of the ways to work with this data and turn it into useful information is through the development of applications like the ones we have been taking about here today. One example is the Wyoming Interagency Spatial Data and Online Management system (WISDOM). It was partly funded by DOE and supports state-wide efforts looking at tools that bring wildlife consideration into the discussion of energy development.
4. We have an energy atlas that is at the first step of development. The Wyoming Geospatial Hub came online last week. The CHAT is another tool, as previously mentioned. It is important that these state efforts integrate with the regional and national efforts, as well. The most important thing is that these tools are not only developed and maintained but also used appropriately.

Presenter Name: Ryan Lance
Affiliation: Counsel, Crowell & Moring, LLP

1. No speech from me is complete without reference to sage grouse. In 2003, we heard that you have to conserve large blocks of habitat or the bird is going to be extinct. We listened and developed a map that shows core areas which represent the large-impact habitats for sage grouse. Many industry representatives said we were setting aside a lot of habitat and they wanted to know why. Setting aside that land means we are giving up opportunities such as wind and gas-powered generation.
2. We knew what a listing would mean to us. It takes 64 percent of all producing wells off the table. It takes 83 percent of all gas production wells off the table. This is unacceptable in an oil and gas producing state like Wyoming.
3. In October, the Secretary of the Interior released Secretarial Order 3330 which talks about improving mitigation. The keys were the following:
    a. Be landscape-scaled
    b. Integrate the mitigation framework early
    c. Make sure it is durable, the process is transparent, and it addresses climate change.
4. We have this notion of avoidance, we have the notion of minimizing our footprint, but what we do not have is: what do we do with these core areas of habitat? Sometimes the resources are simply where they are and you cannot do anything about it, so you must have a thoughtful path forward.
5. Public involvement in conservation, in terms of public funding, is dropping vary fast. We have to align incentives across the country to incentivize private investments in conservation that align with the benefits of other industries.
6. How do you conserve species? Conservation banks have to add conservation value and be attractive to land owners. We have to protect all core habitats of the species.

Presenter Name: Nicole Korfanta, Ph.D.
Affiliation: Director, Ruckelshaus Institute of Environmental and Natural Resources, The University of Wyoming

1. I will focus on the information needs for energy mitigation and siting. Mitigation is a challenging balancing act. As scientists, we always want more and better data. There are three major needs:
    a. A shared mitigation language, including standardization of the language, and most importantly clear metrics about what constitutes success.
    b. Create and consider solid baseline data to guide planning and siting. This needs to be developed early on. Careful siting is one of the most important mitigation tools we have. Baseline data adds little value when not considered early.
    c. Mitigation best practices–learning from experiments. Effective mitigation practices must be evaluated transparently, along with methodology to determine how and why they worked. We must learn from mitigation approaches before we deem them successful.

Panel Questions and Answers

Q: We heard that there are local and regional tools that are working very well. Can these tools be used in the federal siting process and do you recommend any specific change in the federal siting process that could incorporate those tools?

Pam Eaton

- There are opportunities and ongoing efforts to use those kinds of tools. I want to go back to my point about WECC in the use of these tools for electricity planning. It is a significant change in which we can develop alternatives, much earlier in the planning process so we can have electrical solutions that can anticipate the on-the-ground-issues we are hearing here today.

- We need tools to educate and engage early on. CHAT, WISDOM, and other datasets should be used and maintained.

Chris Scolari

- These tools need to be used in the right context. As a first look, these tools show what areas in the states, which we need to look at during the project development phase. These are not substitutes for interaction and consultation with state experts.

Jeff Hamerlinck

- The challenges are the following:
    - The data can be hard to find.
    - The data is also often hard to manage.
    - Data changes on a daily basis, so we need to make sure we are accessing the most up-to-date information.
- There is a tradeoff of functionality and having more tools.

Ryan Lance

- I do not think any of this can work without having the right permitting process. The EPA and Fish and Wildlife Service need to come to the table and join the rest of us while we are developing solutions, rather than after the fact.

- Banking will not work in this State unless we address the following issues:
    - Because of the inter-mix of federal lands and state lands with private lands, the BLM has to give us a defined path forward on adjacent properties to ensure management unification.
    - We need a process to generate credits on federal lands and incentivize investments for improving federal lands.
    - BLM needs to tell us whether we can use credits or not.

Nicole Korfanta

- I am sensitive after the first two panels which asked for better reliance on data. We could account for data in the NEPA process in a better way. NEPA documents are often self-referential. It is often hard to figure out where the data came from.

Q: Are there compensatory mitigation suggestions, methods, alternatives you would like to suggest to the QER Task Force to take into consideration regionally or at the federal level?

Pam Eaton

- We are starting to look at how to structure the contribution of public lands and investments in mitigation. There are many issues related to that effort.

- We hope the Administration focuses on the question of durability. How do we make sure we have the durability of the conservation and investments in the mitigation areas? That is a big challenge that requires substantial creative thinking, use of authorities, and even changes in policies and new directions.

Chris Scolari

- Predictability and consistency are important, and need to be translated across state, federal, and public lands. In that way, developers would know what would be required from them and they can meet the requirements.

Ryan Lance

- The real question is: What are you going to accept and what is the standard? In the State of Washington, they are looking at reducing the standards to attract more people to the table, and I do not think that works. I encourage people to maintain a high standard and not dumb those down based on the newest widget.

Nicole Korfanta

- Compensatory mitigation is the future. The question is: how do you know you have been successful? The most common metrics we hear about are: money spent, acres conserved, and what was done. But we want to hear about how those mitigation actions actually affect the wildlife population.

Q: What specific recommendation do you have for the QER Task Force and the Administration?

Nicole Korfanta

- I have been excited to see some of the memoranda that have recently come out, especially on mitigation. I would like to encourage that we put some numbers to that which result in better measures. That is the next step.

Ryan Lance

- My suggestion is that you come see us here more often. Coordination strategy is developed right here. You all have great ideas in Washington. We would really appreciate if you join us here as opposed to sending down directives and internal memoranda.

Jeff Hamerlinck

- We need more support within the federal agencies and individual agencies. A key to that is reenergizing the Geospatial Liaisons Program of the U.S. Geologic Survey. That entity has faced recent cuts and is an important tie to decision making data across agencies.

Chris Scolari

- I would like to reiterate what Mr. Lance said: There is really no substitute for in-person consultation. We need more consultation and discussion on the front end. That will provide more benefit at all levels.

Pam Eaton

- I would ask DOE to continue to fund the development of this kind of environmental information for the use of energy infrastructure development.

- We also need to engage a broader set of stakeholders in the deployment of energy resources. I would like to see the government provide more resources and assistance to federal land management agencies and other land owners and users about how to anticipate and plan future energy development.

- We need to understand what is on the table and what is coming down the line. DOE and the National Renewable Energy Laboratory are working more with land management agencies and that is important and can be strengthened with additional research. There are many values to reconcile and reckon with, and we have to figure out how to do that better and support our systems, which are very important.

Public Comments

The public is allowed to sign up to provide comments, and each commenter was allowed five minutes in which to make them. Commenters were asked to approach one of the standing microphones as their name was called to introduce themselves, their organizations and make their comments. On the stage representing the DOE were Dr. Karen Wayland, Deputy Director of the Office of Energy Policy and Systems Analysis (EPSA) for State, Local and Tribal Cooperation. Also on stage were Matt McGovern and John Richards, Senior Advisors in EPSA.

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.

There were no oral public comments during the Cheyenne Public Meeting.

Meeting Conclusion

Dr. Karen Wayland thanked everyone and stated that in many of the QER Public Meetings DOE has heard information from stakeholders that is contrary to the knowledge they had been receiving in Washington. The statements from the panels are on the website as well as the summaries and meeting transcripts. She assured the audience that DOE will be using these documents for the analysis that will come out of the QER process. She recognized the hard work of her staff and the Energetics Inc. staff and thanked the panelists and attendees, and the meeting was adjourned.

The next series of meetings can be found at www.energy.gov/qer. To provide written comments to the process please send all emails to: QERComments@hq.doe.gov.