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MEETING ELECTRICITY DEMAND IN THE WEST THROUGH RESPONSIBLE DEVELOPMENT OF ENERGY RIGHTS-OF-WAY ON FEDERAL LANDS

JOINT OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

JOINT WITH THE

SUBCOMMITTEE ON FORESTS AND FOREST HEALTH

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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JOINT OVERSIGHT HEARING ON "MEETING ELECTRICITY DEMAND IN THE WEST THROUGH RESPONSIBLE DEVELOPMENT OF ENERGY RIGHTS-OF-WAY ON FEDERAL LANDS"

Tuesday, June 27, 2006
U.S. House of Representatives
Subcommittee on Water and Power, joint with the
Subcommittee on Forests and Forest Health
Committee on Resources
Washington, D.C.

The Subcommittees met, pursuant to call, at 10:07 a.m. in Room 1324, Longworth House Office Building. Hon. George Radanovich [Chairman of the Subcommittee on Water and Power] presiding.

Present: Representatives Radanovich, Napolitano, Hayworth, Herseth, McMorris, Kildee, and Tom Udall.

STATEMENT OF THE HONORABLE GEORGE RADANOVICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. RADANOVICH. Good morning, and welcome to today's joint hearing of the Subcommittee on Water and Power, and the Subcommittee on Forests and Forest Health.

Today's hearing is about making sure our consumers have access to reliable and affordable electricity supplies.

Last month, we examined ways to improve management of our existing rights-of-way on Federal land, and we learned that there is much room for improvement. We will continue to call for a change in forest management on current rights-of-way, but today we turn our attention to future transmission opportunities.

As in many water and power instances of the West, the numbers simply don't add up when it comes to electricity supply and demand. For example, my home State of California must bring in 1,000 megawatts of new capacity each year—and that doesn't count retirements—to meet a 2 percent historic growth rate. The old saying of "Build it and they will come" doesn't apply anymore because people will come anyway. So, we have an obligation to meet this new demand or we will repeat the disastrous 2001 energy crisis.

Many in the West are doing their part to meet the region's demands. New generation is coming on line. Some new transmission

will be built soon, but the bottom line is that we still have a long way to go.

The energy bill signed into law last year set up a process to help us move in this direction. The energy bill required the designation of energy corridors through western Federal lands to help expedite new transmission while protecting the environment. We will hear today about how the Department of Energy is proactively carrying out the law and the public response to that effort.

We will also hear about visionary transmission projects that could bring green power on line. The need for renewable power increases every year, yet in many cases there is no way to bring the supply to the demand, and the Frontier Line could be one such step in that direction.

Four Governors have devoted considerable resources to making this project a reality. It could bring hundreds of millions of dollars to their economies and could also meet the green power needs of many Californians. This project has a long way to go, but the ultimate test will be how our Federal land agencies react to it since they will most likely travel over Federal land.

Will they throw up every bureaucratic roadblock and stand with those who never want to build anything or will they recognize its true value and work with the states and consumers who need it?

Today is an opportunity to move in a very positive direction. We have some very qualified individuals here who know firsthand what it takes to keep the lights on, and I look forward to your testimony and to hearing from our Committee colleagues.

Before I turn to Mrs. Napolitano, I want to thank Congressman Walden, our colleague from Oregon and the Chairman of the Forest and Forest Health Subcommittee, for his work on the hearing. He regrets that he cannot attend today but as Vice-Chairman of the Energy and Commerce Oversight and Investigations Subcommittee, he is chairing a hearing on children's issues.

Now I recognize the Ranking Member, Mrs. Napolitano. Grace.

[The prepared statement of Mr. Radanovich follows:]

Statement of The Honorable George Radanovich, Chairman, Subcommittee on Water and Power

Today's hearing is about making sure our consumers have access to reliable and affordable electricity supplies.

Last month, we examined ways to improve management of our existing electricity rights-of-way on federal land—and we learned that there's much room for improvement. We will continue to call for change in forest management on current rights-of-way, but today we turn our attention to future transmission opportunities.

As in many water and power instances of the West, the numbers simply don't add up when it comes to electricity demand and supply. My home State of California must bring 1,000 megawatts of new capacity each year—and that doesn't count retirements—to meet a 2% historic growth rate. The old saying of "build it and they will come" doesn't apply anymore—they will come anyway. So, we have an obligation to meet this new demand or we will repeat the disastrous 2001 energy crisis.

Many in the West are doing their part to meet the region's demands. New generation is coming on-line. Some new transmission will be built soon. But, the bottom line is that we still have a long way to go.

The Energy bill signed into law last year set up a process to help us move in this direction. The Energy bill required the designation of energy corridors through western federal lands to help expedite new transmission while protecting the environment. We will hear today about how the Department of Energy is proactively carrying out the law and the public response to that effort.

We will also hear about visionary transmission projects that could bring green power on line. The need for renewable power increases every year, yet in many

cases there's no way to bring the supply to the demand. The Frontier Line is one such way to do that. Four governors have devoted considerable resources to make this project a reality. It could bring hundreds of millions of dollars to their economies and could help meet the green power needs of many Californians. This project has a ways to go, but the ultimate test will be how our federal land agencies react to it since it will most likely travel over federal land: will they throw up every bureaucratic roadblock and stand with those who never want to build anything, or will they recognize its true value and work with the states and consumers who need it?

Today is an opportunity to move in very positive directions. We have some very qualified individuals here who know firsthand what it takes to keep the lights on. I look forward to their testimony and to hearing from our Committee colleagues.

STATEMENT OF THE HONORABLE GRACE NAPOLITANO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Ms. NAPOLITANO. Thank you, Mr. Chairman. It is a pleasure to welcome the witnesses today, and I look forward to hearing the testimony.

Mr. Chairman, about five years ago, as you well know, California experienced statewide rolling blackout that left over 1.5 million of our Californians without power, and we are now in summer, and we in California, as well as in other parts of the nation, may be faced with a threat once more.

This transmission capacity is a key part of ensuring there is sufficient supply of electricity that is going to be available to our users. However, conservation is another element of this, and I am not hearing as much on this in some of the testimony, but I cannot help but think that our needs for more transmission corridors might be reduced if we had meaningful energy conservation programs.

We will be talking about the development of energy corridors on public lands, and I think that it is important to point out that public lands are just that—public. Part of being responsible for what we do with these public lands involves asking the public what concerns they have over the use of public lands, and if private lands are contemplated that Congress respects the private concerns of the public and the tribes.

That is why it is very appropriate that we are having the hearing today. Currently the Department of Energy and the Bureau of Land Management are lead agencies on one of the largest designations of energy transmission corridors that we have ever seen. In accordance with the National Energy Policy Act of 2005, both are carrying this out with unprecedented speed, and I have some concerns about that speed.

While this is going on, it is very critically important that we not lose sight of our responsibility to again involve the public in the process as much as possible as these lands belong to all American citizens, and we should make every effort to encourage their involvement.

This is not a process to be shortcut as work proceeds on the Westwide energy corridors, the pace, and we should be very deliberate and transparent in our decisions to site these corridors, and ensure that we are indeed focusing our resources on placing the corridors where they are actually critically needed.

There in the process we also need to honor our past commitments and avoid actions that would harm those lands which we have deemed to deserve our protection.

I do look forward to hearing from today's witnesses on these very important issues, and thank you so very much, Mr. Chairman.

Mr. RADANOVICH. Thank you very much, Mrs. Napolitano.

I now recognize the gentleman from New Mexico, Mr. Udall, Ranking Member of the Forest and Forest Health Subcommittee, for an opening statement.

STATEMENT OF THE HONORABLE TOM UDALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW MEXICO

Mr. TOM UDALL. Thank you, Mr. Chairman, and I will just make a couple of comments.

The first thing I would like to do is echo the comment of the Ranking Member here on conservation. It is absolutely clear to me that we need to do a lot more on the conservation front and energy efficiency front. America uses twice as much energy as our friends over in Europe, and I think we could do a lot better job there.

I am also worried about the air quality impacts. We all want to have clean air. This proposal, I think, is to generate electricity in Wyoming, and move it out to California, and I just wonder is it fair to release carbon dioxide and mercury and other contaminants in Wyoming when this pollution would never be allowed in California.

The last worry that I just want to highlight that I will be asking some of the panel members about has to do with coal-fired plants. We have not come up with clean coal yet. We do not have that technology, and we are embarking around the world with 1,200 coal-fired plants in the next five or 10 years, which is going to have a dramatic impact on CO2 emissions, and then on global warming. So it worried me a lot that we are headed down this path without having the technology in place.

So with that, Mr. Chairman, I would ask permission to put my statement in the record and look forward to hearing from the panelists.

Mr. RADANOVICH. Without objection, so ordered, and I thank the gentleman from New Mexico.

I now recognize the gentleman from Arizona, Mr. Hayworth.

STATEMENT OF THE HONORABLE J.D. HAYWORTH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. HAYWORTH. Mr. Chairman, thank you for holding the hearing, and I am pleased to see a good Arizonan here to offer the perspective of my home state, and I commend you for holding this joint hearing. I look forward to hearing from the witnesses.

I yield back.

Mr. RADANOVICH. Thank you, Mr. Hayworth.

Would you like to do an opening statement, Kathy? OK, very good.

With that, I want to welcome our panel here today. I want to thank you very much for traveling to be here today and give us your valuable information on this subject. What I will do—well, first of all, I will introduce you, and then after that ask each one

of you to speak, and then we will open up the panel for questions from the dais here.

Joining us here today is Mr. David Meyer, Deputy Director of the Office of Electricity Delivery and Energy Reliability from the U.S. Department of Energy in Washington, D.C. Mr. Meyer is accompanied by Mr. Ray Brady from the Bureau of Land Management; Dr. Laura Nelson, Energy Policy Advisor in the Office of Governor Jon Huntsman, Salt Lake City, Utah; Mr. Robert Smith; Manager of Transmission Planning and Engineering, Arizona Public Service in Phoenix, Arizona; Mr. Jay Loock, Director of Technical Services at the Western Electricity Coordinating Council in Salt Lake City, Utah; Mr. Dave Willis, Coordinator of Sierra Treks, and Outfitter from Ashland, Oregon; Mr. James Avery, the Senior Vice President—Electric, San Diego Gas and Electric Company from San Diego, California.

Ladies and gentlemen, welcome again to the Subcommittee, and Mr. Meyer, we will begin with you, and again each one of you have five minutes to address the panel. Please know that your written testimony is submitted in the record in full, so feel free to be extemporaneous in your remarks if you would like.

We are going to use the lights here. It is a typical five-minute system. It works like traffic lights. Green is go, yellow is speed up, and red is stop. So I will let you, if you would use that as a rule of thumb, we will begin with you, Mr. Meyer, and again welcome to the Subcommittee.

STATEMENT OF DAVID H. MEYER, DEPUTY DIRECTOR, OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY, U.S. DEPARTMENT OF ENERGY, WASHINGTON, D.C.; ACCOMPANIED BY RAY BRADY, BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR

Mr. MEYER. Good morning, Mr. Chairman, and Committee Members.

I am David Meyer, Deputy Director of the Permitting, Siting and Analysis Division in the Department of Energy's Office of Electricity Delivery and Energy Reliability.

I appreciate the opportunity to testify before you today about energy corridors on Federal lands, and I won't repeat the comments that have already been made about the importance of these corridors in terms of meeting consumers' future electricity and other energy requirements.

Rather, I will move directly to reporting to you on where we stand now on application of one of the mechanisms in the Energy Policy Act of 2005.

Now, for the designation of corridors, particularly corridors in the West under Section 368, this section of the Act directed the Departments of Energy, Interior, Agriculture, Commerce and Defense to designate multi-purpose energy corridors on Federal lands in the western states by August 2007, and in the rest of the Nation by August 2009.

The Departments, aided by Argonne National Laboratory, have held scoping meetings in the 11 western states, gathered and integrated relevant data from numerous data bases, developed alternatives to be considered in a draft programmatic environmental

impact statement, and developed a preliminary draft map showing potential corridors.

Our project team seeks to accomplish two overarching goals with this project. One is to support the planning and development of needed new energy infrastructure in the West, especially electric transmission. The other is to streamline and expedite the process for siting and permitting energy facilities on Federal lands.

The interagency team is committed to avoiding designation of corridors in sensitive areas wherever possible. Much of the environmental analysis required by the National Environmental Policy Act will be completed within the programmatic phase of this process. This will help to streamline the permitting and siting of energy facilities on Federal lands without compromising the quality of our environmental decisions.

As required by the Energy Policy Act, the project team will propose a specific center line with compatible uses for each energy corridor. The team will prepare a draft programmatic environmental impact statement that will propose for public comment corridors where transmission lines or pipelines may be built in the future.

Additional environmental analysis will be done in the future when individual projects are proposed for siting in designated corridors with opportunities for public involvement and input. This will ensure protection of wildlife habitat, recreation opportunities, and other values of the land within and adjacent to corridor.

The recently published map of proposed corridors was released to provide the public an early opportunity to review potential corridors that may be designated through the environmental impact statement process. As the process continues, the agencies will refine and adjust the map as necessary, and release an updated and more precise map when the draft programmatic environmental impact statement is released.

That impact statement will fully explain the alternatives under consideration by the agencies. Comments on the map are due by July 10, 2006, via DOE's website or regular mail.

In conclusion, Mr. Chairman, the Department of Energy and the other agencies look forward to working with your and your colleagues to expedite and coordinate processes for permitting and siting of energy facilities in energy corridors on Federal lands. We need to do this to increase our reliance on domestic energy supplies and to improve our energy infrastructure.

Thank you. I look forward to your questions.

[The prepared statement of Mr. Meyer follows:]

Statement of David H. Meyer, Deputy Director, Permitting, Siting and Analysis Division, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy

Good morning, Mr. Chairman and Committee Members, I am David Meyer, Deputy Director of the Permitting, Siting, and Analysis Division in the Department of Energy's Office of Electricity Delivery and Energy Reliability. I appreciate the opportunity to testify before you today on the subject of energy corridors on Federal lands. Energy corridors are vital links for delivering energy supplies to the Nation's consumers. As you and many of your colleagues have recognized, it is of little benefit to increase domestic energy production capacity if we are not able to deliver the output to where consumers need it.

The Department of Energy (DOE) is committed to supporting the development and maintenance of a reliable and robust energy infrastructure. We appreciate your

help in passing the Energy Policy Act of 2005 (EPACT) to promote reliability and enhance our reliance on domestic energy sources.

From the early days of this Administration, the President's National Energy Policy has insisted that we can meet the Nation's energy needs while also protecting the environment, and that we do not need to make painful choices between these two important objectives. The Energy Policy Act restates this view. In designating energy corridors on Federal lands, we intend to demonstrate the practicality of this perspective.

Rapid economic and population growth in many parts of the Nation have increased the demand for energy supplies and outpaced the development of new energy infrastructure. At the same time, local community opposition and environmental concerns have frequently made it more difficult to site needed new facilities. By enacting EPACT, the Congress created important new mechanisms to streamline and expedite permitting and siting processes for such facilities. My purpose today is to report on where we stand today on one of those mechanisms: that is, designation of energy corridors in the West under section 368 of the Act.

Specifically, section 368 of the Energy Policy Act directed the Departments of Energy, Interior, Agriculture, Commerce, and Defense to designate multipurpose energy corridors on Federal lands—in the western states by August 2007 and in the rest of the Nation by August 2009. The central purpose was to perform the environmental and other analyses needed to identify areas on Federal lands suitable for use as energy corridors, and ensure that these corridors will be available for such use if needed in future years. Since the Act's enactment, the Department of Commerce has chosen to participate as a consulting agency. The other four Departments, aided by Argonne National Laboratory, have held scoping meetings in the eleven western states, gathered and integrated relevant data from numerous data bases, developed alternatives to be considered in a draft programmatic environmental impact statement (DPEIS), and developed a preliminary draft map showing potential corridors.

The four Departments created a project team consisting of DOE's Office of Electricity Delivery and Energy Reliability as the lead, the Bureau of Land Management (BLM) as a co-lead, and the USDA Forest Service and the Department of Defense as cooperating agencies. The Department of the Interior's Fish and Wildlife Service and the State of California are also cooperating entities. The Department of Commerce has participated in a consulting role.

The project team seeks to accomplish two overarching goals with this project. One is to support the planning and development of needed energy infrastructure in the West, especially electric transmission. The other is to streamline and expedite the process for siting and permitting energy facilities on Federal lands. "Pre-approval" of corridors designated through this process will facilitate the siting of new energy infrastructure needed to meet growing energy demands while protecting the environment. The interagency project team is committed to avoiding designating corridors in sensitive areas wherever possible. Much of the environmental analysis required by the National Environmental Policy Act (NEPA) will be completed within the programmatic phase of this process. This will help to streamline the permitting and siting of energy facilities on Federal lands, without compromising the quality of our environmental decisions.

The project team has solicited and received extensive public input on the designation of section 368 corridors, and is continuing to work extensively and cooperatively with other Federal agencies, Indian Tribes, States, and local governments, and the public. Overall, DOE believes that the governors of the affected states and the majority of affected Tribes were satisfied with these procedures and with the preliminary draft map of section 368 energy corridors we released on June 9 of this year. To date no State has raised major objections or questions concerning the draft map, although the comment period on it has not yet closed. We look forward to continuing to work with the States in this process.

As required by EPACT, the project team will propose a specific centerline, width, and compatible uses for each energy corridor. The team will prepare a DPEIS that will propose for public comment corridors where transmission lines or pipelines may be built in the future. Additional environmental analysis will be done in the future when individual projects are proposed for siting in designated corridors, with opportunities for public involvement and input. This will further ensure protection of wildlife habitat, recreation opportunities and other values of the lands within and adjacent to corridors.

The programmatic environmental impact statement (PEIS) process is critical to implementation of section 368 because it will culminate in the issuance of coordinated Records of Decision that the participating agencies will incorporate into their respective land use and resource management plans. With these changes, the plans

will specify the energy corridors where transmission lines or pipelines may be built in the future. Issuing coordinated Records of Decision involving several Departments and agencies will set an important and remarkable precedent.

Since the enactment of EPACT in August 2005, a great deal of work has been done by the Agencies to implement section 368. Here, I will cite a few highlights:

- Public scoping meetings were held in each of the 11 western States from October to November 2005.
- The four Agencies agreed upon a Memorandum of Understanding (MOU) to help streamline the siting of energy facilities in designated corridors, and sent it to Congress in February 2006.
- A preliminary map of draft energy corridors on Federal lands was posted for comment on DOE's 368 website, http://corridoreis.anl.gov, in June 2006.
- Discussions are continuing with Tribes, States and Federal agencies regarding possible energy corridors on Federal lands

I attach below a more detailed outline of consultation and coordination activities to date, along with some key upcoming events.

The recently published map of proposed corridors was released to provide the public an early opportunity to review potential corridors that may be designated through the PEIS process. As the process continues, the Agencies will refine and adjust the map as necessary—and release an updated and more precise map when the DPEIS is released (about December 31, 2006). The DPEIS will fully explain the alternatives under consideration by the Agencies. Comments on the June 9 map are due by July 10, 2006 via DOE's 368 website, http://corridoreis.anl.gov, or regular mail.

As envisioned by Congress, section 368 of EPACT seeks to enhance the delivery of oil, gas, hydrogen and electricity and to strengthen the electricity transmission grids by improving reliability, decreasing congestion and enhancing transmission capability. The corridors on Federal lands will be designed to accommodate multiple infrastructure projects, including transmission lines and gas, oil, and hydrogen pipelines.

In conclusion, Mr. Chairman, the Department of Energy and the other Agencies look forward to working with you and your colleagues to expedite and coordinate the processes for permitting and siting of energy facilities in energy corridors on Federal lands. We need to do this to increase our reliance on domestic energy supplies and improve our energy infrastructure.

Thank you. I look forward to your questions.

APPENDIX

Report Development

- Public scoping meetings held in each of the 11 western states from October to November, 2005
- Summary of Public Scoping Comments posted on website, January 31, 2006
- MOU (EPACT, secs. 368/372) with the four agencies to streamline the siting process—signed and sent to Congress, February 2006
- Meeting with NEPA staff from all four agencies to discuss the outline of the PEIS and varying cultural differences of how this product should look, May, 2006
- Preliminary draft of energy corridors on Federal Lands posted on DOE's 368 website, http://corridoreis.anl.gov, June 9, 2006
- Ongoing updates to map (in response to comments) until field analysis for PEIS begins
- Ongoing coordination with DOE's sec. 1221 team re identification of congested areas and potentially relevant corridors
- Ongoing discussions with Tribes, States and Agencies regarding possible energy corridors on Federal Lands
- Ongoing discussions with NEPA working groups on energy corridor designation (tribal, cultural, geospatial, other)
- Ongoing work to prepare and publish DPEIS
- Publication of DPEIS by December 31, 2006
- Comments period on DPEIS, January—early March 2007
- Incorporate comments as appropriate and prepare the final PEIS (March 2007—June 2007)
- Issue Record of Decision showing final corridors, and incorporate corridors into the land use plans and resource management plans for specific BLM areas and National Forests (August 2007).

Work on planning energy corridors on Federal lands in the rest of the U.S. (including Alaska and Hawaii) has not yet begun. A report to Congress on that subject is due August 2009.

The roles of the participating Departments and Agencies are summarized below:

- The Department of Energy's Office of Electricity Delivery and Energy Reliability has the lead for this project. The Department has experience preparing environmental impact statements both as an individual agency and in partnership with other agencies in relation to Presidential Permits for international transmission facilities and authorizations for electricity exports. The Department also provides general energy knowledge and expertise for this project.
- The Bureau of Land Management (BLM) is the co-lead and has experience preparing PEISs, both as an individual agency and in partnership with other agencies. The most recent example is the Wind Energy PEIS, prepared with the Department of Energy. The BLM is also preparing a PEIS for development of oil shale and tar sand resources on public lands.
- The Department of the Interior's Cooperating Agency Rule allows other Federal agencies as well as State, Tribal and local governments to become full partners in preparing the PEIS. This enables Interior's Fish and Wildlife Service to be a cooperating agency.
- The Department of Agriculture's Forest Service is a Cooperating Agency in the energy corridor PEIS. The Forest Service is working closely with the other agencies to ensure that proposed energy corridors are compatible with land management plans' desired conditions and objectives for the affected National Forests.
- The Department of Defense is a Cooperating Agency in the energy corridor PEIS and has extensive experience managing its training and testing lands and military installations. The Department is working closely with the other Federal agencies to ensure that proposed energy corridors are compatible with its national security mission.
- In California, the Energy Commission has led an Interagency PEIS workgroup comprised of multiple Federal and state agencies. The Interagency workgroup has assisted the Agencies by reviewing potential corridors and providing recommendations, system information, and potential environmental and land use impact information to DOE for consideration in the DPEIS.
- Argonne National Laboratory is under contract to DOE to help with the PEIS process.

Mr. RADANOVICH. Thank you, Mr. Meyer. Appreciate your testimony.

Next is Dr. Laura Nelson, the Energy Policy Advisor for the Office of the Governor in Salt Lake City, Utah. Welcome to the Subcommittee. You may begin.

STATEMENT OF LAURA NELSON, ENERGY POLICY ADVISOR, OFFICE OF GOVERNOR JON HUNTSMAN, SALT LAKE CITY, UTAH

Ms. NELSON. Thank you. Good morning, Mr. Chairman, Ranking Member Napolitano, Members of the Subcommittee, and ladies and gentlemen. It is my pleasure to be here today and have this opportunity to provide this testimony.

My name is Dr. Laura Nelson and I am the Energy Advisor to Utah Governor Jon Huntsman, Jr. My testimony today is being provided on behalf of the Frontier Line Board, which is comprised of representatives of the Governors' offices of Utah, Nevada, Wyoming, and California. However, I do want to state for the record that my testimony represents the specific view of the Utah Governor's office.

Mr. Chairman, the Subcommittee asked us to discuss how we can meet the electricity demand in the West through responsible development of energy rights-of-way on Federal lands. Now, I am not going to respond to this theoretically, but rather in terms of a

specific groundbreaking electricity infrastructure project, which is known as the Frontier Line that is now being developed in the West.

As my written testimony details, my Governor and those of California, Nevada, Wyoming and Arizona are working to encourage the private sector to develop a multi-gigawatt transmission line or a series of lines that would allow fast-growing load centers—they are in California, Utah, Arizona and other states—to tap into the vast renewable and clean coal resources in the region.

We fundamentally believe that when this project is completed, that it will be the largest single clean energy enabling infrastructure project ever built in the American West. In addition to helping our citizens access fast, clean energy resources with which our region is blessed, it will also strengthen our grid's reliability which will help us to avoid the economically devastating outages such as those that were experienced in the 2000 and 2001 crisis.

It will also strengthen our nation's energy and national security by allowing us to rely more on energy that is produced right here in North America and depend less on energy that is imported from increasingly volatile sources. It is a fundamental part of keeping energy prices as low as possible, especially for the millions of low-income families who in the face of rising energy prices are ever increasingly faced with the choice—food or fuel, and it will help drive down the cost of cutting-edge technologies, those that have been noted here today, and envisioned in EPACT, such as coal gasification, and there will be revolutionary environmental and social benefits to our citizens from the development of these technologies.

The Frontier project right now is moving forward very rapidly. We are currently engaged in a feasibility study with the utilities that are in our four states, and a conceptual plan is being conducted.

So what can the Federal government do to assist western states in developing a project like this? Well, let me state first that designating energy corridors on Federal lands, the process that is currently underway as a result of EPACT Section 368 is certainly a strong step in that direction.

Mr. Chairman, we are still in the process of studying the preliminary draft maps that were released by DOE as are wide range of stakeholders in our state. However, I can say that our states do believe that the effort to designate the corridors will help increase the regulatory certainty upon which energy infrastructure investments depend. That is a critical goal for our entire region, and we believe further that successful completion of the 368 process will be essential for the development of interstate transmission projects like the Frontier Line.

Our Governors, as well as the WGA, have noted that there have been difficulties in siting energy infrastructure. However, I want to state that those are not usually the result of problems within the states, but often because of difficulties in siting across Federal lands.

Now, the regulatory processes involved with siting across regulatory lands are in the public interest, but we believe that if we have greater certainty around those regulatory processes, that that will benefit both developers and the environment.

I want to note that my State of Utah is in fact fundamentally committed to balancing the interest of the environment, the economy, and energy development, and we do, as I stated, believe that all of these interests can be better served if there is greater certainty in the regulatory process.

In summary, America's energy generation and transmission grid is the single most complicated system our society has ever constructed, and for the most part people don't even notice it. But it is fundamental. It helps us to enjoy the standard of living that we currently have. It supports our quality of life. It allows us to get up in the morning, make coffee if we chose to, to go to work, educate our children, and to keep our families safe. It is truly the lifeblood of our society, our economy, and our nation. I would be happy to take questions when it is convenient.

[The prepared statement of Ms. Nelson follows:]

Statement of Laura Nelson, Ph.D.,
Energy Advisor to Utah Governor Jon Huntsman, Jr.

Good morning, Mr. Chairman, Ranking Member Napolitano, Members of the Subcommittee and ladies and gentlemen.

My name is Dr. Laura Nelson and I am Energy Advisor to Utah Governor Jon Huntsman, Jr.

I am pleased to be here this morning. My testimony is being provided on behalf of the Frontier Line Board, which is comprised of representatives of the Governors' offices of Utah, Nevada, Wyoming and California. However, for the record, let me state this testimony represents the specific views of the Utah Governor's office.

I would ask that my full testimony be entered into the record.

The Subcommittee has asked the witnesses in this hearing to respond to this question: how can we meet the electricity demand in the West through responsible development of energy rights-of-way on federal lands?

Mr. Chairman, I will answer that question not in theoretic terms, but rather in terms of a specific, groundbreaking electricity infrastructure project, known as the "Frontier Line," now being developed for the West.

But before I provide that input, let me say this.

Any time the Federal Government engages in processes to expedite development on Federal lands, those processes are going to be controversial. Thus, with regard to electricity infrastructure, I think it is appropriate to consider why we are pursuing what will sometimes be a difficult approach.

America's energy generation and transmission grid is the single most complicated system our society has ever constructed. The grid is also practically invisible to the great majority of your constituents and to most Americans.

Few things, though, are more central to our standard of living and supporting the quality of life in this country. The grid allows us to make our morning coffee, to get to work, to educate our children, to keep our families safe, to save lives and heal the sick, to create jobs and make our economy the envy of the world, and to keep our environment clean.

It is truly the lifeblood of our society, our economy and our nation.

Of course, most people don't notice the grid until something goes wrong and the lights go out. That's when we, our governors and your offices, are flooded with calls from distressed citizens.

Preventing those service interruptions must be our number-one policy goal. Disruptions in service adversely impact our business, our economy and our daily lives. Some circumstances can, in fact, lead to more catastrophic events where people are physically injured or suffer inordinate losses.

A more robust grid can help ensure that we are positioned to avoid to a greater extent the possibility of the blackouts and brownouts that our region endured in 2000-2001. In the view of my Governor's office, it is imperative that we make it the utmost priority to pursue polices and developments that support this objective.

We also need a stronger grid system for many other compelling public policy reasons.

- A more robust grid increases our energy and national security. An enhanced grid will allow us to have greater reliance on and utilization of energy that is

produced right here in North America. We will have to depend less on energy imported from increasingly dangerous and volatile sources.

- A more robust grid will allow our citizens to access the vast clean energy resources with which our region is endowed. The West has significant opportunities for increased development of solar, wind, geothermal, biomass and clean coal resources. Most of these resources are remotely located from load centers and must have their power delivered via wire to consumers. Without an adequate grid, these clean energy resources are stranded and consumers are denied access to the clean resources that are increasingly demanded.
- An enhanced grid is a fundamental part of keeping energy prices as low as possible. This is particularly important for the millions of lower-income families who, in the face of rising energy prices, are increasingly faced with this stark choice of "food or fuel."
- Overall, a more robust grid will help to drive down the cost of new, cutting-edge technologies that can deliver revolutionary environmental and social benefits to our citizens. It will help us develop more renewable power plants, more hybrid fossil-renewable systems, and more clean coal generation facilities, such as gasification, liquefaction and polygeneration facilities. Certainly, those on Wall Street will note that greater investment in transmission capacity is a prerequisite to increased investment in most new baseload clean energy technologies.

The Frontier Line Vision

In the view of my Governor and of his colleagues from Wyoming, Nevada and California, the Frontier Line will help us achieve these goals. It also represents a collective vision of our Governors to encourage the construction of what would be the single largest clean-energy enabling infrastructure project ever built in the American West.

This vision for the Frontier Line had its roots in a multi-year effort to examine the potential benefits of a more robust regional electricity grid for the West. That effort was known as the Rocky Mountain Area Transmission Study (RMATS) and was led by the States of Utah and Wyoming.

In short, the RMATS study found that a project like the Frontier Line could generate annual consumer and generator benefits to the region of between $926 million to $1.7 billion based on natural gas prices lower than what we are expecting to experience going forward. The study indicates that California consumers alone stand to potentially benefit by $325 million to nearly $400 million annually.

Since the RMATS study was completed, other experts have done similar analyses that showed possible benefits to the region of significantly above these initial estimates.

The RMATS findings generated considerable discussion among our governors resulting in the concept of the Frontier Line which was unveiled by the Governors of Utah, Wyoming, Nevada and California in April 2004.

Their vision was to encourage the construction by the private sector of a multi-gigawatt transmission line, or series of lines, that would allow fast-growing load centers in California, Nevada, Utah, and other states to tap into the vast renewable and clean coal resources across the region of these states. It promulgated the vision of how transmission would be planned and built in the West to support our ever growing and vital economies. It has spawned the philosophy and the perpetuation of regional planning of transmission development as a necessary prerequisite for realizing our mutual goals of greater energy security and improved electric reliability.

Additional transmission infrastructure is seriously needed by our region. Using a historic growth rate of 2% per year, California must add at least 1,000 MW of new capacity each year, net of retirements, into the foreseeable future. Many theorize that it is unlikely that the West Coast and the Southwest region will be able to meet their rapidly growing demand for power without tapping into other regional resources. Additionally, the rapidly growing population centers in Nevada and Utah are likely to need greater access to affordable and reliable electricity resources from within their states and through energy imports from other states in the region.

Resource-rich states such as Wyoming are anxious to utilize their expansive resource base to develop abundant renewable and clean coal power supplies for export. A limiting factor to additional expansion that would benefit all consumers in the West is lack of sufficient transmission.

Our Governors agreed that interconnecting these regions served the public interest in terms of meeting consumer demand, promoting resource diversity, pushing clean energy technologies forward, strengthening our region's energy and increasing our nation's energy security.

Where We Are Today

In April of this year our States reached agreement with a group of investor-owned utilities that provide service to territories in our four states to conduct a highly detailed feasibility study and conceptual plan for the Frontier Line. This study is now underway, and Mr. Chairman, I would ask that the joint letter between these utilities and our Governors' offices outlining this agreement be entered into the record.

Under the agreement, the utilities formed a "Partnership" comprised of the following companies:

- Pacific Gas & Electric Company
- San Diego Gas & Electric
- Southern California Edison Company
- Sierra Pacific Power Company
- Nevada Power Company
- Rocky Mountain Power and Utah Power, both divisions of PacifiCorp, which is itself part of the MidAmerican Energy Holdings Company.

The utility Partnership is now known as the "Western Regional Transmission Expansion Partnership" and is considering the benefits to the states involved in the Frontier Line in coordination with utility representatives from two other states in an effort to provide a more comprehensive evaluation of the benefits of broader regional transmission objectives.

The utilities that have engaged with the Frontier Line Partnership in this broader coordinated effort on transmission planning are Arizona Public Service (APS) and Public Service Company of New Mexico (PNM). APS is currently pursuing its own project, The TransWest Express, which we view as a highly complimentary transmission project to the Frontier Line.

In short, it is the Frontier Line Board's view that the Frontier Line will help create a new paradigm for how energy infrastructure can be planned and built and that this is necessary to accelerate the development of new, advanced clean energy technologies making America stronger, more energy independent and more economically competitive on a global basis.

It also will help us more rapidly reach a goal that I believe is shared by virtually all members of the Subcommittee: achieving a workable, common sense balance between environmental conservation and economic growth.

Mr. Chairman and members of the Subcommittee, I have included at the end of my full testimony:

- A copy of the Memorandum of Understanding between our Governors that launched this project; a historic perspective on efforts to expand the West's transmission grid;
- A copy of the Letter of Agreement between our Governors' offices and the Frontier Line Partnership investor-owned utilities;
- Detail on the evolution of this project;
- The reasons why our Governors believe that a project like the Frontier Line is needed; and
- A listing of the specific project criteria developed by our four Governors' offices that we used as a guide in moving this project forward.

Comments On The Section 368 Process

Let me get to the question you posed today—how can meet the electricity demand in the West through responsible development of energy rights-of-way on federal lands?

As you know, federal agencies such as the Department of Energy, the Department of Interior's Bureau of Land Management, the USDA Forest Service, and the Department of Defense are working on two processes as directed by Congress to designate energy corridors in the West for expedited siting of energy infrastructure projects. I will limit my remarks today to the "Section 368 process," which is the subject of this hearing.

In general, our States applaud the Congress and the Administration for taking on the task of designating such corridors through federal lands.

We are still studying the preliminary draft maps that were recently released by DOE, as are a wide range of stakeholders in our States.

However, I can say at this stage that our States believe the effort to designate these corridors will help increase the regulatory certainty upon which energy infrastructure investment depends. That is a critical goal for our entire region.

As the 368 process continues, we are encouraging the Agencies to focus on an outcome that helps achieve the goal of significantly increasing our domestic energy supplies to support greater energy independence as Congress envisioned with passage of EPAct05.

We believe further that successful completion of the 368 process will be essential to the development of projects such as the Frontier Line.

As our Governors, and the Western Governors' Association has noted for several years, difficulties related to the siting of energy infrastructure systems such as high-voltage transmission lines is almost never caused by the intransigence and opposition of States. It is, unfortunately, more often because of difficulties that we, and private sector developers, face in navigating the difficult shoals of getting approvals from federal agencies. Those hurdles range from securing approval for siting permits on federal lands to working through necessary steps involved in the Endangered Species Act, the National Environmental Policies Act and other regulatory processes.

By and large, these federal regulatory processes are necessary and in the public interest. However, we do believe that the 368 energy corridor designation process will help facilitate and expedite the development of much-needed infrastructure projects in the West, and we support its completion.

I would also note that my state, Utah, is fundamentally committed to balancing the interest of the environment, economy and energy development. We believe that all interests can be better met when there is greater certainty in the regulatory processes.

Furthermore, a number of stakeholders and experts in our States are making specific recommendations with regard to the corridor designations and to the programmatic Environmental Impact Statement. I have attached a listing of those recommendations to my testimony. I offer these not as formal recommendations from our States but as ideas that are now being discussed by some of our States' stakeholders with the 368 agencies.

Summary

In summary, Members of the Subcommittee, I would make these points:

- The West needs a strong and robust electricity grid that can deliver affordable, reliable and ever-cleaner power to our consumers.
- Federal and state policymakers have a very important role to play in facilitating increased investment in that grid.
- Efforts like the 368 process are critical to facilitating the siting and construction of new electricity infrastructure in the West.

Mr. Chairman, and Members of the Subcommittee, I can speak for all of the Frontier Line Governors when I say that our States look forward to working with you, and with the entire Congress, in collaborative efforts to strengthen our nation's energy infrastructure.

I would be happy to take questions at your convenience.

NOTE: The Memorandum of Understanding attached to Dr. Nelson's statement has been retained in the Committee's official files.

Mr. RADANOVICH. Thank you, Ms. Nelson. I appreciate your testimony.

Next is Mr. Robert Smith with the Arizona Public Service.

Mr. HAYWORTH. Arizona.

Mr. RADANOVICH. Excuse me, Mr. Hayworth.

Mr. Smith, you may begin your testimony.

STATEMENT OF ROBERT SMITH, MANAGER, TRANSMISSION PLANNING AND ENGINEERING, ARIZONA PUBLIC SERVICE, PHOENIX, ARIZONA

Mr. SMITH. Thank you. Good morning, Mr. Chairman, Members of the Committee.

My name is Bob Smith, and I am the Manager of Transmission Planning for APS and Manager of the APS-sponsored TransWest Express Project. I have submitted a written statement that I would like to that this opportunity to summarize.

First, I want to thank you for the opportunity to speak today on an issue that is important to the electric utility industry, the growing need for additional transmission infrastructure and the obstacles that exist. I also want to express our optimism that the staffs

of the Department of Energy, Department of Interior and other agencies appear to be working diligently and cooperatively to complete the tasks assigned to them.

Arizona and much of the rest of the Southwest has experienced demand growth of 3 to 4 percent and this growth is expected to continue. The area has seen an increased reliance on natural gas as most recent resource additions have been gas-fired combined cycle generators.

During 2005, APS resource planning determined a need for additional baseload generation as early as 2013. Because of the quality of potential wind and coal resources in Wyoming, this area was targeted as an option for development of future resources. Recognizing the lack of transmission availability from Wyoming into the Southwest, ASP, in October of 2005, announced that it was initiating a feasibility study for the TransWest Express Project, a new EHV transmission project from Wyoming to Arizona and other possible locations in the Southwest.

APS is conducting its analysis in an open process that seeks input from all potential stakeholders. Four working groups were formed to perform technical transmission analysis, permitting analysis, economic analysis, and to develop a contract for potential participants to participate in the next phase of studies and permitting. These working groups are open to all stakeholder participation.

The feasibility study is evaluating a variety of options, including several two-circuit, 500 kV AC transmission systems, and one single circuit DC transmission line. We have made outstanding progress in the feasibility analysis of Phase I is on schedule.

The transmission and permitting feasibility analysis is complete, and APS has performed internal economic analysis comparing the project that is associated development of Wyoming resources to further expansion of both gas and coal within Arizona. We are also coordinating our feasibility effort with studies underway for the Frontier project.

The results of these analyses show project alternatives that are feasible across a wide range of assumptions and we expect to begin permitting in early 2007 for the project.

The rest of my testimony applies not only to the TransWest Express Project, but to all planned transmission facilities which will require permitting on Federal lands.

We were generally pleased with the maps that were issued showing the preliminary corridors for the Section 368 designation, and we will provide comments upon seeing the more detailed state maps that are anticipated, but we do have a couple of concerns that I want to highlight today.

APS wants to be sure that already designated utility corridors will be carried forward in this process. Corridor widths need to be wide enough to allow the construction to avoid environmentally sensitive areas, address engineering and other technical issues, and provide sufficient separation between co-located energy facilities.

The 3,500-foot width proposed with the initial map is in many cases a step backward. APS supports wider corridors. In my testimony I included some pictures of a recent fire in Arizona that took two extra high-voltage transmission lines out of service. Obviously,

the wider the corridors enables us to build these lines with more spacing, decreasing the chances of multiple outages from fires.

APS encourages the Departments to identify and designate alternatives in case the initial corridors prove difficult to site. Procedures to define should ensure that siting within corridors designated as part of the PEIS process is streamlined as compared to siting outside of these corridors, and those procedures also need to provide for timely participation and review by all key Federal agencies, including the United States Fish and Wildlife Service.

We encourage Congress to ensure that the agencies are appropriately funded and have assigned personnel to complete their tasks within a timely manner.

Thank you again for allowing me to speak today.

[The prepared statement of Mr. Smith follows:]

Statement of Robert Smith on behalf of Arizona Public Service Company and The TransWest Express Project

My name is Robert Smith and I am the Manager of Transmission Planning and Engineering for Arizona Public Service Company (APS). On behalf of APS, I participate in several regional transmission planning organizations that continue to evaluate the need for investment in the high-voltage transmission system throughout the West. I also am the Project Manager for the TransWest Express Project (TransWest Express). I appreciate the opportunity to testify before this joint subcommittee hearing on behalf of APS and TransWest Express.

APS, Arizona's largest and longest-service electricity utility, serves more than 1 million customers in 11 of the state's 15 counties. With headquarters in Phoenix, APS is the largest subsidiary of Pinnacle West Capital Corporation (NYSE: PNW). In late 2005, APS announced the initiation of a feasibility study for TransWest Express, which is designed to allow Arizona and other western states increased capability to access electricity generated from coal and wind resources in Wyoming. I will discuss TransWest Express in more detail later in my comments.

I am here today first to thank you for including provisions in the Energy Policy Act of 2005 (EPAct 2005 or Act) to address the continuing and growing need for additional high-voltage electricity infrastructure in the West. Through my involvement in various regional planning efforts and the Western Congestion Assessment Task Force (WCATF), it has become clear to me that additional interstate transmission is needed to ensure grid reliability in the future. That same transmission also will help consumers access reliable, affordable and environmentally responsible sources of energy. It is therefore important that the efforts begun in the EPAct 2005 be implemented in a timely and complete manner.

I also am here to express APS's appreciation for the genuine effort and commitment demonstrated by the Departments of Energy and Interior, the United States Forest Service, and the Defense Department (collectively, the Departments) to accomplish the tasks that Congress set for them under Section 368 of the Act. Because securing corridors for energy rights-of-way across federal land is critical if western energy infrastructure needs are to be met in a reasonable time frame, we value the dedication of agency personnel to accomplishing their tasks. APS is encouraged that the goal of better interagency cooperation, clearly necessary for multi-jurisdictional regional issues, appears to be improving and should provide long term benefits to the public. APS looks forward to continuing to participate in the Section 368 process and to providing comments on the more detailed maps that we understand will soon be issued by the Departments.

APS, like other electric utilities, continually evaluates where it needs both new and upgraded transmission facilities to serve its customers' needs. APS also has worked successfully in the past with various federal agencies, including the Bureau of Land Management, to develop utility corridors that have been incorporated into the agencies' Resource Management Plans and used by APS or others for HV and EHV transmission lines. Because of the value that APS has experienced in siting in designated utility corridors, APS supports the Section 368 requirement that federal land agencies designate energy corridors by August 2007.

Annual system load growth throughout the Southwest is 3-5%, which is approximately three times the national average. It is anticipated that the demand in Arizona alone will grow by an additional 9000 MW by 2020. In order to meet the rapid growth in demand experienced in Arizona over the last several years, and the

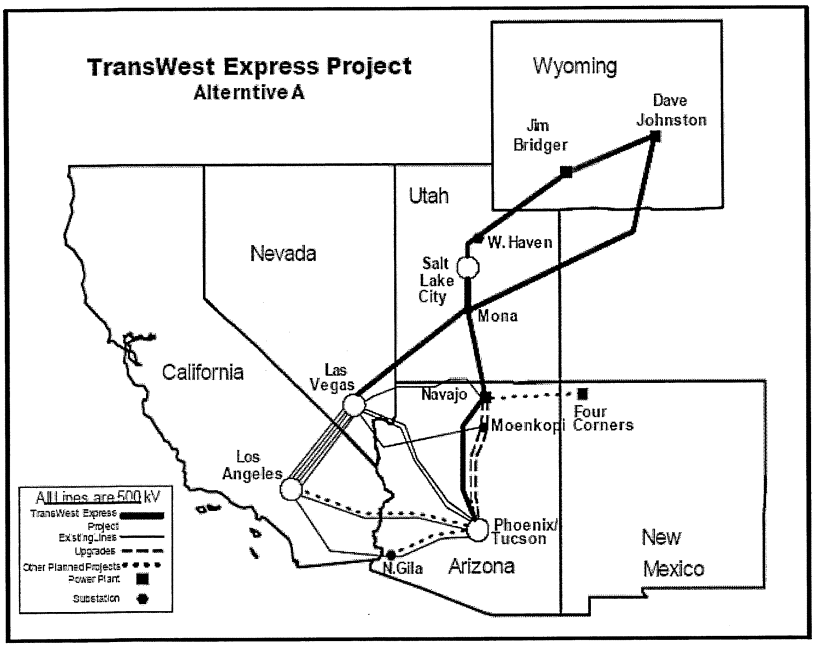
expected continuing rapid growth, APS and the other Arizona utilities have constructed a number of high voltage (HV) and extra high voltage (EHV) transmission projects within Arizona and have several more planned. Included as Attachment 1 to my testimony is a map showing APS's current plans for new facilities between 2005-2014. Attachment 2 is a map that shows existing corridors that could be widened to accommodate additional transmission lines and potential new corridors that APS believes would be beneficial. Both maps were included in APS's Section 368 comments. I am not going to repeat our comments here, but will note that APS believes the corridors indicated on those maps meet the Section 368 goals, and we are hopeful that the federal agencies will designate these corridors in the programmatic environmental impact statement (PEIS) currently being prepared.

Based on APS's assessment of its future resource needs, including both transmission and generation, APS announced TransWest Express in late 2005. APS has been actively seeking input from interested stakeholders, has formed four groups (transmission feasibility, permitting, economic, and legal and negotiating) to conduct the feasibility study, and has held several public stakeholder meetings over the past 8 months. We also routinely update the regional planning groups that could be impacted by the project, as well as the Western Electric Coordinating Council (WECC). Finally, we are coordinating our efforts with the Frontier Project and are updating the various state, local and tribal jurisdictions that the project may touch.

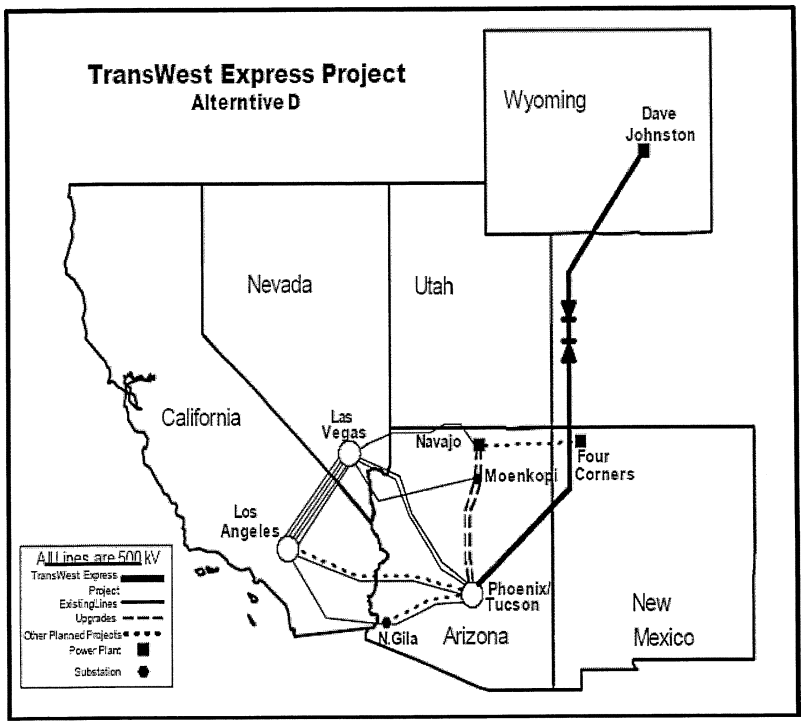
TransWest Express seeks to provide access for APS and the Southwest to coal (including advanced clean coal technologies) and wind resources in Wyoming. The access to these resources will support a balanced resource portfolio for the Southwest and will facilitate the more effective use of domestic energy resources. In addition, and equally as important, TransWest Express will strengthen the reliability of the western transmission system and provide benefits to states throughout the West. All of the routes under consideration for the project are consistent with and supported by both the Report to the Western Governors Association titled "Conceptual Plans for Electricity Transmission in the West" (August 2001) and the Rocky Mountain Area Transmission Study (RMATS) reports. Both of those reports noted that electric transmission in the West is constrained and that those constraints result in the underutilization of the region's vast wind and coal resources.

APS is well along the way with the Phase 1 feasibility study for TransWest Express and we expect to complete it by the end of 2006. APS is modeling several alternatives consisting of two AC or one DC transmission lines along various routes from Wyoming to the Southwest and is assessing the environmental and other siting issues raised by the potential routes. We have completed the initial transmission and permitting analyses, as well as the APS internal economic studies. The results of those analyses show project alternatives that are feasible across a wide range of assumptions and we anticipate beginning the permitting process by early 2007.

The following diagram shows one of the 500 kV AC transmission line alternatives under consideration for TransWest Express:



The following diagram shows one of the DC transmission line alternatives being evaluated:



To fulfill the goal of opening access for Arizona and the Southwest to Wyoming's wind and coal resources, TransWest Express will be required to cross federal lands. Siting, although never an easy process, will be facilitated if TransWest Express is able to use pre-designated utility corridors on those federal lands

APS believes that the timely implementation of Section 368 will:

- Assist the federal land agencies in addressing the anticipated need for new energy infrastructure in the West in their planning efforts;
- Encourage that planning to be conducted in a coordinated West-wide manner so that designated corridors address the need to deliver power across federal land from often remote power sources to loads or markets needing access to that power;
- Assure that the environmental work accomplished during the designation process does not need to be repeated when transmission projects ultimately are sited in pre-designated corridors, thereby streamlining the actual siting of new facilities within the corridors; and
- Reduce the uncertainties of siting on federal lands when companies are able to avail themselves of pre-designated corridors, as uncertainty is always a crucial component when major projects have to be financed in the capital markets.

APS will submit comments to the federal agencies regarding the proposed corridor maps, but notes the following concerns and issues that we believe should be considered:

- The preliminary maps issued by the federal agencies do not include already existing corridors as corridors to be carried forward. It is not clear if that is intended to imply that those corridors will not be redesignated or whether they will remain in place and the corridors on the map are additional corridors. APS believes that the agencies need to carry forward all of the existing corridors already included in Resource Management Plans and that the PEIS should address additional utility corridors.
- While APS understands the concern that agencies might have had about public reaction to something that might be perceived as "over designation," it is critical that utility corridors be wide enough to provide the flexibility needed to avoid environmentally sensitive areas, address engineering, technical and vegetation management constraints, and allow lines to be built with sufficient separation to reduce the risk of simultaneous outages of multiple lines. We believe that the drivers for decision making ought to be: (1) anticipated need; (2) an unbiased assessment about how to meet those needs where federal lands must be involved (i.e., avoiding sensitive land unless no other options are available and setting an appropriate higher burden for demonstrating need and no other feasible alternatives when sensitive lands are involved); and (3) the technical requirements governing co-location of energy facilities of the same type or differing types. The agencies have preliminarily proposed corridors of only 3,500 feet wide. Such a narrow corridor not only would be narrower than many previously designated corridors, but does not meet the criteria listed above. APS believes that corridors should be no less than one mile wide and preferably 3-5 miles wide.

Unfortunately, Arizona is quite familiar with the issues raised by lines that were built within a too-narrow corridor. Included as Attachments 3-4 to my testimony are photographs demonstrating the impact that fires, for example, can have on transmission lines that have been constructed within close proximity of each other. APS and Salt River Project (SRP) both serve the Phoenix metropolitan area. The photographs show the SRP Coronado to Silverking 500kV and APS Cholla to Saguaro 500kV lines, both of which recently had to be taken out of service because of the Potato Complex fire in Arizona. The need to take both lines out of service at the same time potentially could have been avoided if the lines could have been built with a larger separation between them. Although the lines were constructed with spacing that sought to balance the need for a right-of-way, the public desire for consolidation, and the need to minimize impact (visual and ground disturbance) and cost, we have learned over the years that additional spacing can be critical to ensure reliability. That is one reason that APS has advocated for widening of existing corridors and for the designation of new corridors to avoid construction of new lines in already existing common corridors.

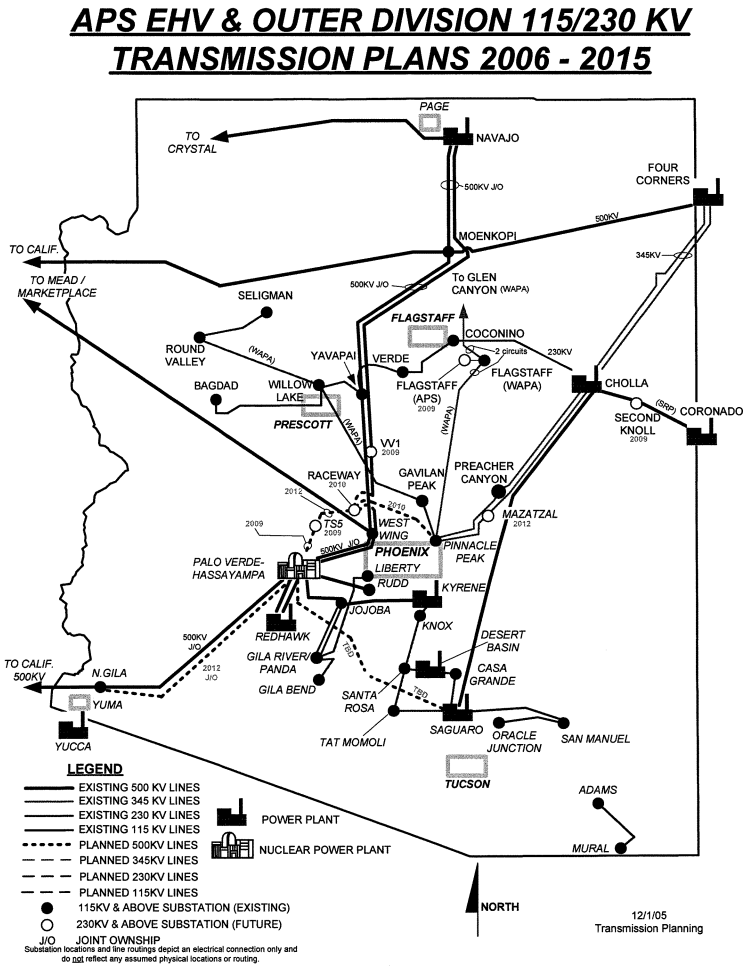
- APS also understands that the Departments are planning to define procedures for siting within designated corridors, as well as the management practices that should be employed. Such practices and procedures will be very important to us and other electric utilities. Meaningful siting procedures that recognize the substantial environmental work that already will have been completed as part of the PEIS will be critical to making the designated corridors useful for their intended purposes. For example, if the siting procedures required within a

designated corridor are not appreciably streamlined compared to those required for siting outside a corridor, companies will have less incentive to avail themselves of these corridors. The procedures developed also should draw from the experiences of those states recognized as having efficient and effective siting processes, such as the Arizona Corporation Commission's transmission line siting committee. To the extent possible, the federal process also should coordinate with state processes.

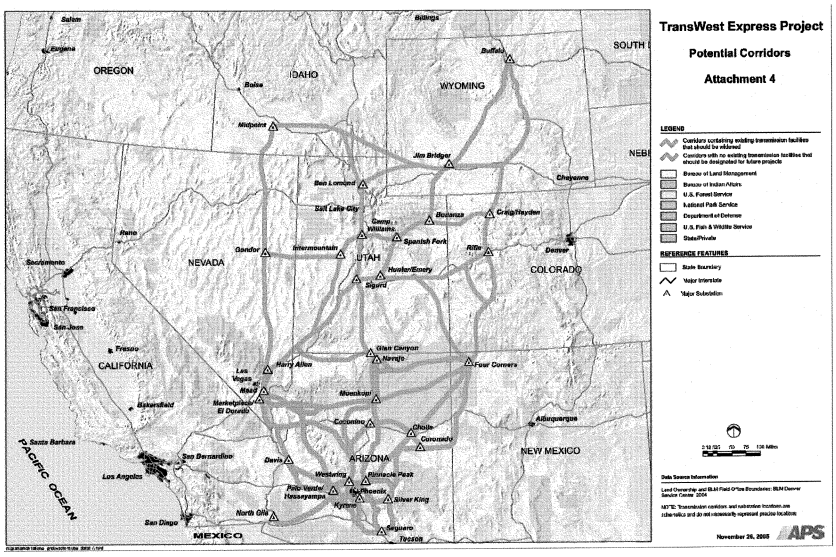
- We also firmly believe that the best management practices developed for designated corridors need to recognize that mandatory reliability standards for vegetation management will soon be in place as required by the EPAct 2005. Through the Edison Electric Institute (EEI), we have signed a Memorandum of Understanding (MOU) with the federal land agencies and the Environmental Protection Agency (EPA), which we hope upon implementation will lead to more timely, technically and environmentally sound vegetation management of transmission rights-of-way (ROWs) on federal land. In addition, the Section 1211(c) of EPAct 2005 requires expedited approvals for steps necessary to comply with mandatory reliability standards. The management practices developed for designated energy corridors is one of the first places where the Departments can begin to implement the MOU and Section 1211(c) to assure that reliability standards can be met.
- The United States Fish and Wildlife Service (USFWS) has an important role to play in helping the Departments complete their assignments under Section 368 on time. The active and consistent participation of USFWS in the process will be required for the Departments to reach the final designations of energy corridors across federal lands. USFWS will be critical to the development and review of streamlined siting procedures and the best management practices designed for the corridors. We urge you to assure that USFWS is taking on this responsibility and fully participating and responding to needs identified in interagency corridor effort.
- Finally, while I've primarily discussed energy corridors on federal land, I want to take a moment to discuss the new Section 216(h) of the Federal Power Act, established by EPAct 2005. This provision gives the Department of Energy (DOE) lead agency responsibility to coordinate the issuance of all federal authorizations required for transmission projects. This primarily means the authorizations required to cross federal land, including USFWS review. It requires a coordinated process to ensure that the federal authorizations are issued based on the same consolidated record of review, in a timely fashion and, to the maximum extent practicable, coordinated with state siting processes. We are pleased that DOE, the federal land agencies, and the Federal Energy Regulatory Commission (FERC) have commenced the implementation of the consolidated review. Effective and judicious development and implementation of that review process are essential to facilitate the timely construction of the transmission projects required to need the infrastructure needs of the West. We also encourage DOE and FERC to implement a federal process that can be coordinated with and implemented at the same time as the state siting process is being implemented.

Thank you for holding this hearing and providing all of us speaking today the opportunity to discuss the infrastructure siting issues we are attempting to address. APS looks forward to working with you on these issues.

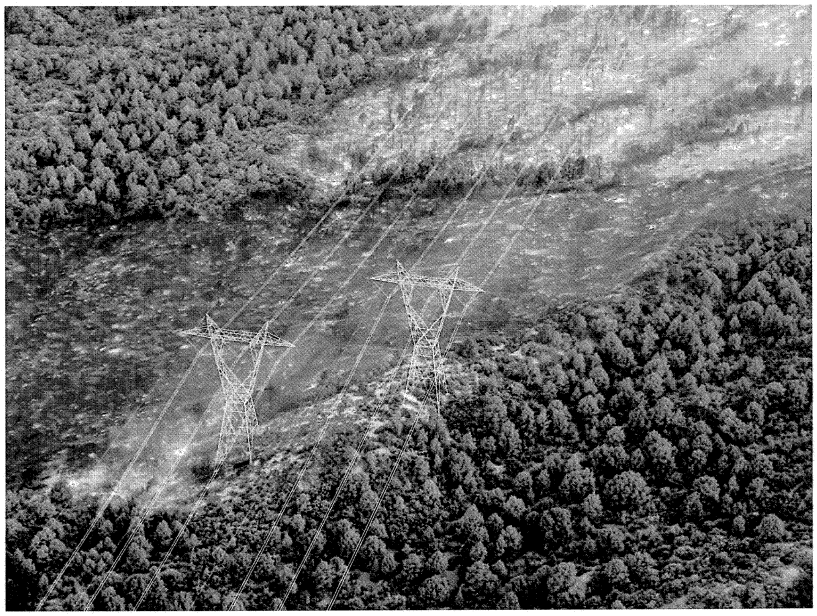
Attachment 1



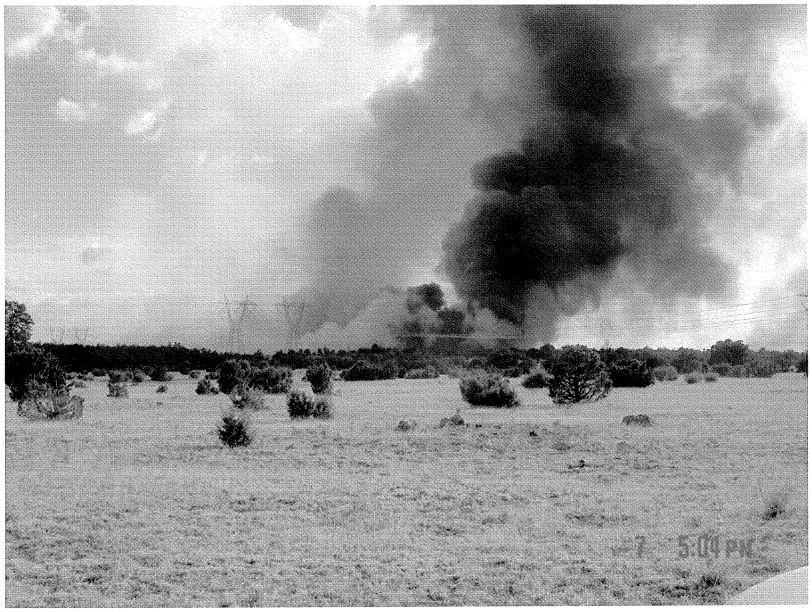
Attachment 2



Attachment 3



Attachment 4



Mr. RADANOVICH. Thank you, Mr. Smith, for your testimony.

Next is Mr. Jay Loock who is with the Western Electricity Coordinating Council.

STATEMENT OF JAY LOOCK, DIRECTOR, TECHNICAL SERVICES, WESTERN ELECTRICITY COORDINATING COUNCIL, SALT LAKE CITY, UTAH

Mr. LOOCK. Thank you. It is a pleasure to be here, Mr. Chairman.

I am the Director of Technical Service for the Western Electricity Coordinating Council staff located in Salt Lake City, Utah. I have been asked to address ways and studies being undertaken in the West to relieve transmission congestion and enhance grid reliability and develop new right-of-ways on Federal land through the West. I appreciate this opportunity.

Just briefly, the WECC, what we are known by, encompasses a vast alae of nearly 1.8 million square miles. It is the most diverse of the regional councils in the North American Electric Reliability Council known as NERC.

WECC's service territory extends from Canada to Mexico. It includes the provinces of Alberta and British Columbia, and the northern part of Baja California Mexico, and all or portions of the 14 western states between.

Due to the vastness and diverse characteristics of the region, WECC's members face unique challenges in coordinating the day-to-day interconnected system operation and long-range planning

needed to provide reliable and affordable electric service to more than 71 million people in WECC's service territory.

Congestion studies that have been undertaken, and the Energy Policy Act of 2005 it requires DOE, of course, to issue a national transmission congestion study by August 2006, and every three years thereafter. Based on this study and public comment, DOE is to designate selected geographic areas as national interest electric transmission corridors.

The Western Congestion Assessment Task Force was formed in the fall of 2005 due to a proposal to DOE, co-sponsored by WECC, CREPC, a western state agency group, and the Seems Steering Group of the Western Interconnection.

The WECC has been involved looking at congestion for several years. When DOE received this assignment via the energy bill, the natural path to follow was for the WECC to provide the study information to DOE.

WECC had essentially completed most of the historical congestion studies prior to the formation of this task force. The main purpose of the task force was to serve as a forum to develop the input to DOE from the West. The process has been open to all interested participants, and there has been good participation throughout the Western Interconnection.

The task force also served as the forum to discuss the various DOE issues as they impacted the West, such as definition of corridors, definition of congestion areas, et cetera.

Through the task force the WECC has developed a good working relationship with the Department of Energy. There has been DOE representation and participation at all these meetings. The Department of Energy and the West formed a productive relationship through the task force both from the standpoint of the West understanding DOE's needs and DOE understand the needs, processes and practices in the West.

The major goal of the task force report was to assist DOE team when working to implement the Section 1221 of the Energy Policy Act of 2005 and help inform the team as it compiles a congestion study of the nation's transmission system.

The task force completed its primary goal of identifying transmission congestion in the Western Interconnection and submitted a large report to the U.S. Department of Energy's National Interests Electric Transmission Corridor Team on May 9, 2006.

The task force's intent was to draw congestion information from current and recent planning work throughout the entire Western Interconnection.

This report identified congested areas. It identified major assumptions, and congestion drivers. It identified economic impact of congestion. It also identified sensitivity of congestion to assumptions of gas prices, hydro levels, et cetera, and this report can be looked at on the WECC website.

Recommendations that we draw from this is the overall effort to designate corridors on Federal lands should be commended since the right-of-ways are getting more difficult to obtain. To be meaningful, the designation on Federal lands must be coordinated with corridor designations on Federal lands through a coordinated effort

with state, local, and regional planning entities to provide corridor continuity.

Corridor designation for electric transmission and gas pipelines must recognize technical separation issues, addressing safety, reliability, and maintenance considerations. There have been instance of gas pipeline explosions along pipeline right-of-ways that could significantly impact electric reliability if there is not adequate separation.

If gas and electric are on the same corridor, separation must recognize certain technical aspects to ensure safety of pipeline operation. One is the impact of ground currents in the vicinity of electric structures during electric flashovers under fault conditions and the impact of these ground currents on pipelines in close proximity to electric facilities.

There is a reliability risk of placing too many transmission lines on a common corridor. There are also risks when gas pipeline and electric transmission lines are on common corridors the pipelines may be feeding gas to generating resources in the same load areas which electric transmissions are providing energy delivery.

The task force work of identification of future congestion areas and the need to assure that Section 368 work and the ongoing 1221 are coordinated.

Once again, I appreciate this opportunity to address this committee, Mr. Chairman.

[The prepared statement of Mr. Loock follows:]

Statement of James T. Loock, on behalf of Western Electricity Coordinating Council Staff

My name is James T. Loock and currently I am the Director of Technical Services for the Western Electricity Coordinating Council (WECC) Staff located in Salt Lake City, Utah. I have been asked by the Subcommittees on Water and Power and Forests and Forest Health to address ways and studies being undertaken in the West to relieve transmission congestion, enhance grid reliability and develop new rights-of ways on federal land throughout the West. I appreciate the opportunity to testify before this joint subcommittee hearing on behalf of WECC on these issues.

Background

WECC represents the electric power systems engaged in bulk power generation and/or transmission serving all or part of the 14 Western States and British Columbia, Canada. WECC's interconnection-wide focus is intended to complement current efforts to form Regional Transmission Organizations (RTO) in various parts of the West. WECC is responsible for coordinating and promoting electric system reliability. In addition to promoting a reliable electric power system in the Western Interconnection, WECC supports efficient competitive power markets, assures open and non-discriminatory transmission access among members, provides a forum for resolving transmission access disputes, and provides an environment for coordinating the operating and planning activities of its members as set forth in the WECC Bylaws.

The WECC region encompasses a vast area of nearly 1.8 million square miles. It is the most diverse of the regional councils of the North American Electric Reliability Council (NERC). WECC's service territory extends from Canada to Mexico. It includes the provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 western states in between. Transmission lines span long distances connecting the verdant Pacific Northwest with its abundant hydroelectric resources to the arid Southwest with its large coal-fired and nuclear resources.

Due to the vastness and diverse characteristics of the region, WECC's members face unique challenges in coordinating the day-to-day interconnected system operation and the long-range planning needed to provide reliable and affordable electric service to more than 71 million people in WECC's service territory.

Membership in WECC is voluntary and open to any organization having an interest in the reliability of interconnected system operation or coordinated planning. The Council provides the forum for its members to enhance communication, coordination and cooperation—all vital ingredients in planning and operating a reliable interconnected electric system.

WECC members have long recognized the many benefits of interconnected system operation. During the mid 1960s, expansion of interconnecting transmission lines among systems in the western United States and western Canada resulted in the complete interconnection of the entire WECC region. As this expansion was taking place, systems generally adopted the Operating Guides of the North American Power Systems Interconnection Committee (NAPSIC) to promote consistent operating practices within the region. NAPSIC later became the NERC Operating Committee.

Congestion Studies:

The Energy Policy Act of 2005 requires DOE to issue a national transmission congestion study for comment by August 2006, and every three years thereafter. Based on the study and public comments, DOE is to designate selected geographic areas as "National Interest Electric Transmission Corridors."

The Western Congestion Assessment Task Force (WCATF) was formed in the Fall of 2005 due to a proposal to DOE cosponsored by WECC, CREPC (a Western State agency group) and the Seams Steering Group—Western Interconnection. The West has been involved at looking at congestion for several years. When DOE received its assignment via the 2005 Energy Bill, the natural path to follow was for the West to provide the study information to DOE. The West had essentially completed most of the historical congestion studies prior to the formation of WCATF.

The main purpose of the WCATF was to serve as the forum to develop the input to DOE from the West. The process has been open to all interested participants and there has been good participation throughout the Western Interconnection. The WCATF also served as the forum to discuss the various DOE issues as they impact the West, such as the definition of corridors, definition of congestion criteria, when is the appropriate time to designate NIETC corridors and other issues as follows:

- The energy independence of the United States would be served by the designation.
- The designation would be in the interest of national energy policy.
- The designation would enhance national defense and homeland security.
- There must be "adverse impact on consumers" in each area listed as experiencing a transmission capacity constraint or else the constraint is not of national interest.

Through the WCATF, the West has developed a good working relationship with the DOE. There has been DOE representation and participation at the WCATF meetings. DOE and the West formed a productive relationship thought the WCATF both from the standpoint of the West understanding DOE's needs and DOE understanding the needs, processes and practices in the West.

Because the West is one interconnection AND one NERC region, study work has been coordinated for many years. Also due to close working relationships between WECC organizations similar views on the issues affecting the West become part of the dialog with goals of reaching a productive consensus.

The major goal of the WCATF report was to assist the DOE team working to implement Section 1221 of the Energy Policy Act of 2005 and to help inform the team as it compiles a congestion study of the nation's transmission system.

The Western Congestion Assessment Task Force (WCATF) completed its primary objective of identifying transmission congestion in the Western Interconnection and submitted a voluminous report to the U.S. Department of Energy's National Interest Electric Transmission Corridor (NIETC) team May 9, 2006. WCATF intent was to draw congestion information from current and recent planning work throughout the entire Western Interconnection. These studies were summarized into a template format that the WCATF developed just for this purpose. The assessment report presented the following

- Identified congested areas
- Identified major assumptions and congestion drivers
- Identified economic impact of congestion
- Identified sensitivity of congestion to assumptions (gas prices, hydro levels, etc)
- Limitations of the analysis

The study looked at three transmission cases: historical, 2008 and 2015. Based on the transmission traffic on 67 WECC-rated paths in the Western Interconnection, the report found fourteen congestion areas in the region. Of those areas, 11 were reported as being congested in the historical study, with 10 continuing to be

congested or becoming congested by 2008, and eight continuing to be congested by 2015. None of those eight were free of congestion in the 2008 case and only one was free of congestion in the historical study.

- Although the WCATF identified fourteen congestion areas within the Western Interconnection in the 2006 Study, an additional six congestion areas were identified from sub-regional planning studies.
- The WCATF study focused on the identification of transmission congestion; it did not specifically identify resource/load Constraint Areas (as defined by DOE).
- The WCATF Congestion Areas were not ranked due to the variability and inconsistency in the alternative metric ranking methods.
- Studies indicated that future congestion areas are highly dependent upon the location of future resources in the West.
- Proposed transmission additions have already been identified to alleviate the congestion in many identified congestion areas.
- Additional studies are required to determine if it is necessary or economical to add new or upgrade existing facilities to reduce congestion in the WCATF identified congestion areas.
- The WECC plans to pursue modeling improvements in future congestion studies in areas such as hydro models and transmission losses in order to improve the accuracy of modeling studies.
- In addition to the constrained areas identified, a number of studies performed in the Western Interconnection over the last several years have identified potential congestion in the Rocky Mountain Area and specifically Wyoming and Montana. This potential congestion is the result of the identification of abundant coal and wind resources in this area which can be developed and used to supply load growth along the West Coast and in the Southwest. Another resource rich area is the oil sands area in Northern Alberta. Transmission Projects proposed to facilitate resource development in these areas include the TransWest Express Project, the Frontier Project, and the Northern Lights Projects (Celilo and Inland Projects).
- The WCATF conducted an open congestion identification process involving all interested stakeholders. The WCATF encourages continued use of open public processes to identify congestion in the West.

Details of the report to DOE can be found on the WECC web site at: http://www.wecc.biz/modules.php?op=modload&name=Downloads&file=index&req=viewsdownload&sid=178

Recommendations

1) The overall effort to designate corridors on federal lands should be commended since right-of-ways are getting more difficult to obtain. To be meaningful, the designation on federal lands must be coordinated with corridor designations on non-federal lands thru a coordinated effort with state, local and regional planning entities to provide corridor continuity.

2) Corridor designation for electric transmission and gas pipelines must recognize technical separation issues addressing safety, reliability and maintenance considerations. There have been incidents of gas pipeline explosions along pipeline right-of ways that could significantly impact electric reliability if there is not adequate separation.

3) If gas and electric are on the same corridor, separation must recognize certain technical aspects to assure safety of pipeline operation. One is the impact of ground currents in the vicinity of electric structures during electric flashovers under fault conditions and the impact of these ground currents on pipelines in close proximity to electric facilities.

4) There is a reliability risk to placing too many transmission lines on a common corridor. The risk to interconnected system operation is having too many critical facilities on a common right-of-way, or too many lines feeding a major load center on a common corridor. Consideration must be given to wild fires and the impact of smoke on the flashover strength of tower air gaps. There is also a national security issue of having too many facilities on a common corridor, creating the potential vulnerability to terrorist activities.

5) There also are risks when gas pipelines and electric transmission lines are on common corridors, the pipelines may be feeding gas generating resources in the same load areas for which electric transmission is also providing energy delivery. This can compound the problem if there is a corridor loss since CTs may not be available due to lack of gas supply, to serve load that was being served by the electric transmission on the common corridor.

6) The WCATF work of identification of future congestion areas and the need to assure that Section 368 work and the ongoing Section 1221 work are coordinated.

7) New transmission is needed through federal land for load growth and to access renewable and conventional resources.

8) New levels of cooperation and coordination are needed with federal land managers to allow utilities to adequately protect the transmission systems from fires on federal lands.

Basically, the issues of corridor designation partly deals with assuring there is adequate corridor width, to assure that the technical and safety aspects can be dealt with technically.

Future Studies

Long range transmission planning is being performed to address needs and maximize the efficiency of the system through continual coordination efforts in the Western Interconnect.

Recently WECC formed the Transmission Expansion Planning Policy Committee to perform the following main functions:

- Provide policy and management of the transmission expansion planning process.
- Oversee database management of transmission information.
- Guide the analyses and modeling for Western Interconnection economic transmission expansion planning.

Purpose and responsibilities of the new committee include:

- Steering decisions on analytical methods and on selecting and implementing production cost and other models found necessary.
- Ensuring the economic transmission expansion planning process is impartial, transparent, properly executed and well communicated.
- Ensuring that regional experts and stakeholders participate, including state/provincial energy offices, regulators, resource and transmission developers, load serving entities, environmental and consumer advocate stakeholders through a stakeholder advisory group.
- Supporting DOE's initiative to evaluate transmission congestion and identify national interest transmission corridors in order to maximize the utility of DOE's work for the Western Interconnection.
- Organizing and coordinating activities with sub-regional planning processes.

Conclusions

Small towns and major cities in the west are threatened with the loss of power due to fires on federal lands due to limited corridors on federal lands. With work associated with Section 368 federal energy corridors we can provide the opportunity to provide needed expansion and diversity in the western electric transmission system to keep up with load growth and resource adequacy.

We encourage the federal land managers to have a longer-term perspective in their evaluation and consider future needs. There exists sensitivity of resource assumptions for corridor needs, but if action is not taken to identify corridors during this evaluation, can we assume that the needed corridors may not be available in the future?

Mr. RADANOVICH. Thank you, Mr. Loock. Appreciate your testimony.

Next is Mr. Dave Willis, Coordinator with Sierra Treks. Mr. Willis, welcome to the Subcommittee and you may begin your testimony.

STATEMENT OF DAVE WILLIS, COORDINATOR, SIERRA TREKS, OUTFITTER, ASHLAND, OREGON

Mr. WILLIS. Thank you, Mr. Chairman.

I am Dave Willis. For over 30 years, I have run an outfit called Sierra Treks that does trips for church and school groups in Pacific states' wild areas. I live in southwest Oregon where I also coordinate a local conservation group called the Soda Mountain Wilderness Council. We worked very hard for the designation of Oregon's newest national monument, the Cascade-Siskiyou.

Thank you for allowing me to address this in process EIS for the Energy Policy Act, which currently puts a 3,500-foot wide, two-

thirds of a mile wide energy corridor right through the middle of the Cascade-Siskiyou National Monument.

I appreciate the note on the energy corridor's website map that says the majority of the preliminary energy corridors utilize existing corridors and/or rights-of-way. However in the Cascade-Siskiyou National Monument trying to fit a new 3,500-foot corridor into an existing power line swath of 200 feet or less is like asking a python to swallow a brontosaurus.

The Klamath-Siskiyou ecoregion in southwest Oregon and northwest California is the most botanically diverse coniferous forest in North America, if not the world, a veritable Noah's Ark of botanical diversity. It is relatively undeveloped, relatively high elevation connecting land bridge to the Cascades and Great Basin, genetically connects the Klamath-Siskiyou with the rest of the West.

This land bridge to the Cascade-Siskiyou Monument area is the ecological loading dock for the botanically diverse Klamath-Siskiyou arc. That is the scientific reason it was protected as a national monument, and that is why the monument proclamation calls the area an ecological wonder and a biological crossroads.

There are 23,000 acres of the 53,000-acre monument that are wild enough for wilderness designation. Much of the monument's remaining 30,000 acres are not pristine, but the monument wasn't protected for its pristinity, it was protected for its important biological connectivity function, as a genetic loading dock.

One hundred and 200-foot wide conjoining power line corridors already fragment the monument. Interstate 5 on Siskiyou Pass to the West, adjacent private logging and past public logging, and so-called development throughout further fragment the area. Because of the important ecological connectivity values of the area and because of both public and private impacts, as many acres of public land here possible needed and still need the best protection possible.

The Cascade-Siskiyou connection has been an unraveling ecological thread. We need to be repairing the thread here, and turning it into a rope that becomes a biologically resilient ecological connectivity cable. This unique area does not need a 3,500-foot wide government-sponsored mega-swath further fragmenting an ecologically strategic landscape just as management for the area is finally and at long last turning toward recovery.

The Cascade-Siskiyou Monument is no doubt not the only natural or ecologically important area for which a 3,500-foot wide energy corridor is preliminarily proposed. Energy corridors do not belong in national monuments, wilderness areas, wilderness study areas, roadless areas, threatened and endangered species habitat, core habitat linkage areas, migration corridors, citizen-proposed wilderness, key and municipal watersheds, national parks, or national wildlife refuge, and beyond the earnest outpouring of my bleeding green heart, there are pragmatic factors that prudent planners should consider.

Specifically in the Cascade-Siskiyou National Monument, the monument's proclamation says these 53,000 acres "are hereby set apart and reserved for the purpose of protecting" the objects identified in the proclamation, a list of which pretty much covers every native plant, animal, and feature you will find there.

Monument? What monument is that? That is what proposing an energy corridor here says. I don't believe judges will be so confused as to what does and does not constitute protection under the monument proclamation.

The Fish and Wildlife Service's map in the Seattle Times shows proposed energy corridors passing through more than one area of threatened and/or endangered species habitat, including a habitat area in the Cascade-Siskiyou Monument. This particular species, if its habitat area is sufficiently incrementally degraded, could upset an already very precarious Pacific Northwest Federal forest planning apple cart, and bring Federal logging in the region to another standstill.

In any 3,500-foot corridor that violates the BLM wilderness study area, as the corridor does here, violates the non-impairment standard of the Federal Land and Policy Management Act.

Behind the energy corridor map is the nagging larger question of what kind of world we will leave when we are gone. The question of whether our grandchildren will bless or curse us. Personal conservation virtues, contrary to the inference of some, are necessary, but without virtuous policy the special Baldy Creeks, Soda Mountain, Camp Creeks, Skookum Creeks, and Agate Flats of this one lovely irreplaceable world that we did not create and cannot replace are doomed to be just more banal casualties of mindless insatiable appetite. Guaranteed our descendants will curse us for that, if they even have an inkling of what they are missing.

Thank you for considering my remarks.

[The prepared statement of Mr. Willis follows:]

Statement of Dave Willis, Coordinator,
Sierra Treks, Outfitter, Ashland, Oregon

"to reemphasize: The Soda Mountain area is more than just botanically interesting; it is an important link for migration, dispersion, and the process of evolution in the Northwest."

DR. TOM ATZET, U.S. FOREST SERVICE,
SOUTHWEST OREGON AREA ECOLOGIST, MARCH 22, 1994

"The Soda Mountain Area near Medford, Oregon...This decision recognizes the special biological qualities of this unique area and directs the BLM to evaluate carefully the values of the Soda Mountain area as a biological connectivity corridor and propose any additional management protection necessary, including a special designation...to protect those values."

RECORD OF DECISION: "NORTHWEST FOREST PLAN", APRIL 1994, PAGE 30

"Manage...near Soda Mountain and Agate Flat areas as the Cascade/Siskiyou Ecological Emphasis Area...Management will consider four varied plant communities, two RNAs, two ACECs, special status plant and animal populations, crucial deer range for an interstate herd, and the outstanding recreation and scenic values."

RECORD OF DECISION AND RESOURCE MANAGEMENT PLAN, USDI, BLM,
MEDFORD DISTRICT, JUNE 1995, PAGE 56 ("SPECIAL AREAS")

"With towering fir forests, sunlit oak groves, wildflower-strewn meadows, and steep canyons, the Cascade-Siskiyou National Monument is an ecological wonder, with biological diversity unmatched in the Cascade Range. This rich enclave of natural resources is a biological crossroads—the interface of the Cascade, Klamath, and Siskiyou ecoregions, in an area of unique geology, biology, climate, and topography...The monument is home to a spectacular variety of rare and beautiful species of plants and animals, whose survival in this region depends upon its continued ecological integrity."

FIRST WORDS OF THE JUNE 9, 2000 PROCLAMATION ESTABLISHING THE
CASCADE-SISKIYOU NATIONAL MONUMENT (WWW.OR.BLM.GOV/CSNM)

My name is Dave Willis. For over thirty years, I've tried to run a program called Sierra Treks. We offer backpacking and climbing trips for church and school groups in Pacific states wild areas. We help our students understand the obvious, but too often forgotten, truth that while Congress can protect wild areas, Congress does not create them. And, with our students, we mourn the historically unprecedented, relentless loss of de facto wild areas our world suffers each day.

I live in SW Oregon where I also try to coordinate a local conservation group called the Soda Mountain Wilderness Council. We worked hard for the designation of Oregon's newest National Monument, the Cascade-Siskiyou—a not-completely wild area now legally slated for, and desperately in need of, more than merely de facto protection. For over twenty-five years, I've made my home right next to BLM land that is now BLM Monument land. (The neighborhood is improving.)

Thank you, Chairman Radanovich and Chairman Walden, for allowing me to address the Programmatic EIS being prepared per section 368 of the Energy Policy Act of 2005, which currently puts a 3,500 foot wide—two-thirds of a mile wide—energy corridor right through the middle of the Cascade-Siskiyou National Monument.

As the people's representatives, Congress has an unenviable task and heavy burden. Discerning between America's energy needs and wants is challenging. The on-the-ground evidence is that incremental policy drift defines every energy want as a demand that must be met. This is a dangerous, though historic, megatrend—not only dangerous globally (in many painful ways), but also dangerous locally for many precious wildlands and human communities.

I appreciate the "Note" on the June 2006 "Potential Energy Corridors' website map (http://corridoreis.anl.gov/eis.pdmap/index.cfm) that says, "The majority of the preliminary energy corridors utilize existing corridors and/or rights-of-way...." However, in the Cascade-Siskiyou National Monument, trying to fit a new 3,500 foot, two-thirds of a mile, wide corridor into an existing powerline swath of a few hundred feet or less is like trying to get a python to swallow a brontosaurus. And the Interstate-5 corridor, the nearest likely alternative to the west, is already a serious ecological barrier to the primary connectivity reason the Cascade-Siskiyou Monument was designated.

The Klamath-Siskiyou eco-region of SW Oregon and NW California is the most botanically diverse coniferous forest in North America, if not the world—a veritable Noah's Ark of botanical diversity. Its relatively undeveloped, relatively high elevation connecting land bridge to the Cascades and Great Basin genetically connects the Klamath-Siskiyous with the rest of the West. The Cascade-Siskiyou Monument area is the ecological loading dock for the botanically diverse Klamath-Siskiyou ark—that's the scientific reason it was protected as a National Monument. And that's why the Monument Proclamation calls the area "an ecological wonder" and "a biological crossroads."

Though 23,000 acres of the 53,000 acre Monument are wild enough for Wilderness designation, much of the Monument's remaining 30,000 acres are not pristine. But the Monument wasn't protected for its "pristinity." It was protected for its important biological connectivity function—as a genetic "loading dock."

Two conjoining "small" powerline corridors—100 and 200 feet wide—already fragment the Monument. (Their days may be legally numbered). And Interstate-5 on Siskiyou Pass to the west, plus private logging and past public logging, as well as so-called development throughout, further fragment the area.

The Monument was designated—more than "in spite of"—but because of so much pre-existing fragmentation and the very real danger of more. Because of the important ecological connectivity values of the area, and because of both public and private impacts, as many acres of public land here possible needed (and still need) the best protection possible. The Cascade-Siskiyou connection has been an unraveling, ecological thread. Public lands are the area's best anchors for protection. We need to be repairing the thread here and turning it into a rope that becomes a biologically resilient ecological connectivity cable.

Through financial incentives, ranchers are collaborating with conservationists to reduce or eliminate the impacts of livestock grazing here. Timber companies and land trusts are reversing the impacts of industrial logging here. The BLM is about to release a Monument management plan ostensibly aimed at ecological protection, restoration, and enhancement here. This unique area does not need a 3,500 foot wide government-sponsored mega-swath further fragmenting an ecologically strategic landscape just as management for the area is finally and at long last turning toward recovery.

A further irony here would be the social, if not political, impact of a two-thirds of a mile wide energy corridor busting through private lands adjacent to the Monument. The chief argument against the Monument before and after its designation was brought by sincerely mistaken folks who feared the government was really out

to take private land and make it public. That was ridiculous—especially in light of Secretary Norton's first lead Monument staff's statement to five of us local landowners in June 2001 that, "We don't even want public land to be public."

Now the very party that local private property rights advocates cleave to for succor seems about to turn the tables on them. Back in 2001, I told Monument opponents the only talk of eminent domain I was hearing about was in VP Cheney's Energy Plan. Chairman Walden, do you really want me to be able to tell my neighbors—these local constituents of yours—"I told you so"?

The Cascade-Siskiyou National Monument is, no doubt, not the only natural or ecologically important area for which a 3,500 foot wide energy corridor is preliminarily proposed. Energy corridors do not belong in National Monuments, Wilderness areas, Wilderness Study Areas, roadless areas, threatened and endangered species habitat, core habitat/linkage areas, migration corridors, citizen-proposed wilderness, watersheds, National Parks, or National Wildlife Refuges.

And, beyond the earnest outpouring of my bleeding green heart, there are pragmatic factors prudent planners should consider. Specifically, in the Cascade-Siskiyou National Monument:

- The Proclamation says these 53,000 acres "are hereby set apart and reserved...for the purpose of protecting the objects" identified in the Proclamation's pre-amble. (A list of those "objects" pretty much covers every native plant, animal, and feature you'll find there.) With regard to utilities, despite an admirable statement of protection purpose, BLM's proposed Monument management plan seems to say, "Monument? What Monument?" That's what proposing an energy corridor there says, too. Judges will not be so confused as to what does and does not constitute "protection" under the Monument Proclamation.
- The U.S. Fish and Wildlife Service's map shows proposed energy corridors passing through more than one area of threatened and/or endangered species habitat—including a habitat area in the Cascade-Siskiyou Monument. This particular species, if its habitat area is sufficiently incrementally degraded, could upset an already very precarious Pacific Northwest federal forest planning applecart and bring federal logging in the region to another standstill. The current situation, called "gridlock" by some now, would be regarded then, after the next screeching halt, as a cornucopian "Camelot."
- Any 3,500 foot corridor that violates a BLM Wilderness Study Area—as the preliminary corridor through the Cascade-Siskiyou Monument would violate the Monument's Soda Mountain Wilderness Study Area—violates the non-impairment standard of the Federal Land Policy and Management Act.

But I'm not a lawyer. I'm just an eco-hack, has-been outfitter. I submit that if I were a lawyer, my list for prudent planners would be longer. That's why I'm glad to read on the preliminary map's "Note" that "All officially designated corridors will be in compliance with applicable laws and regulations" and that the mapped "corridors are subject to change until they are officially established in August 2007."

Faith that corridor planners will indeed link applicable laws and regulations with pragmatic planning and political sensitivity, has me hoping that no final corridor will be planned for the Cascade-Siskiyou National Monument or any other natural or ecologically sensitive area. I hope my faith in planner compliance is not misplaced.

Finally, as our elected representatives, I implore you to move us beyond writing off serious energy conservation measures as an optional "personal virtue." I implore you to not simply regard every energy demand as a commanding, irrefutable need. I implore you to use boldness and creativity—to be the leaders we elected you to be—to give us the inspiration and incentive to reduce our energy demand. This is certainly easier said than done. I don't envy the national responsibility you each campaigned for and—at least temporarily—have achieved.

We're all temporary. Behind the energy map is the nagging question of what kind of world we'll leave when we're gone—the question of whether our grandchildren will bless or curse us. "Personal virtues," contrary to the inference of some, are necessary. But, without virtuous policy, the special Baldy Creeks, Soda Mountains, Camp Creeks, Skookum Creeks, and Agate Flats of this one lovely, irreplaceable world that we did not create and cannot replace are doomed to be just more banal casualties of mindless, insatiable appetite. Guaranteed: our descendants will curse us for that—if they have even an inkling of what they're missing.

The Cascade-Siskiyou Monument's Proclamation says the area "is home to a spectacular variety of rare and beautiful species of plants and animals whose survival in this region depends upon its continued ecological integrity." Behind our current unbridled energy consumption, there is more than plant and animal survival at stake. And more than ecological integrity is at stake, as well, in setting energy policy.

Thank you for considering my remarks.

Recap of key points and considerations:

When energy needs are real, and after all conservation measures have been seriously implemented through energy policy, designating corridors to transport energy across the nation is a good idea, but it is vital that these corridors are located only in appropriate places, and that their construction and use are also carefully determined. Thoughtful planning is the best way to protect people and the rest of the natural environment.

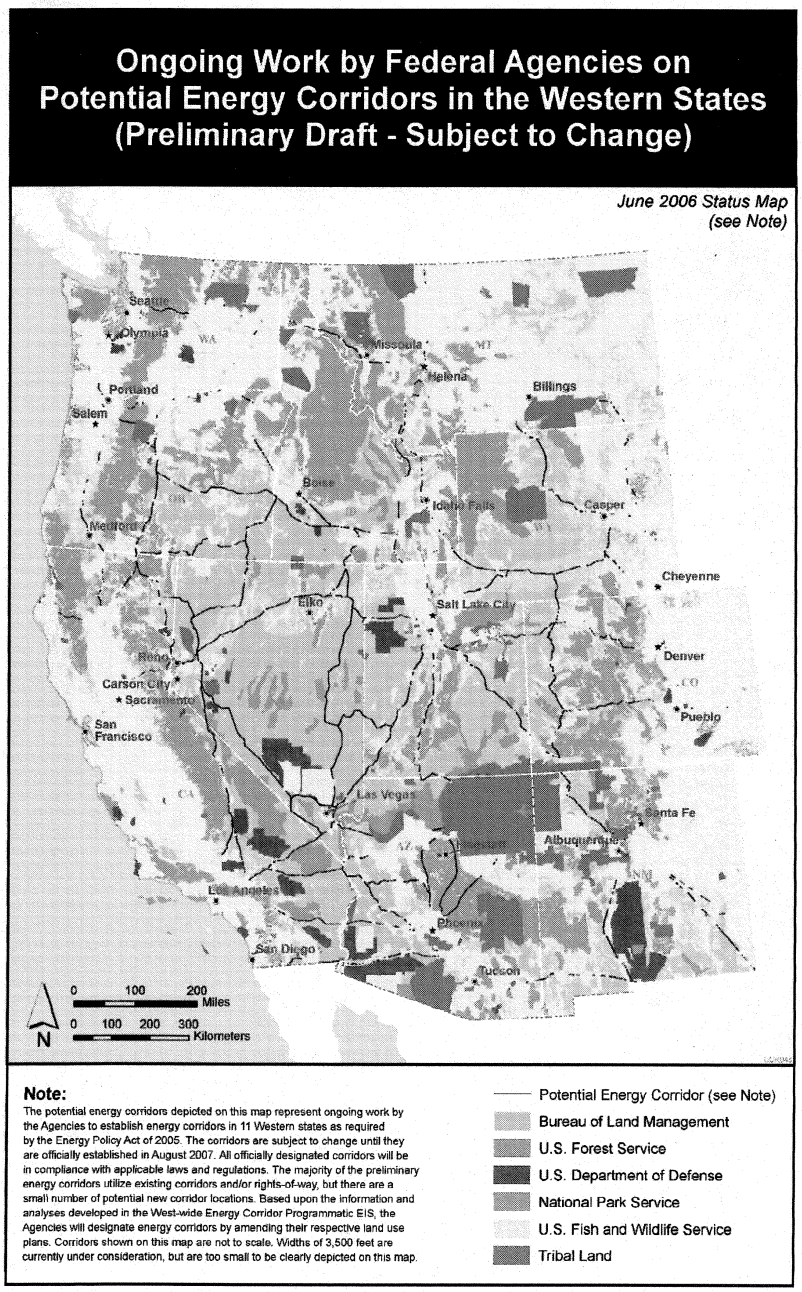
The Cascade-Siskiyou National Monument is a prime example of a place that a corridor of the substantial width and range of uses contemplated by Section 368 of the Energy Policy Act should not be placed. The risk of damaging the Monument's values is too great and exposing the Monument to such a risk would be inconsistent with the Presidential Proclamation.

- The proposed corridor through the Cascade-Siskiyou National Monument is located in old growth forest, as well as habitat for the Northern spotted owl. Most of the existing corridor is accessed by only a very rough, four-wheel drive track. The proposed 3,500 foot wide corridor appears to follow an existing right-of-way, but the current corridor is only 100 to 200 feet wide and is only for a powerline. Placing a wider corridor in this location would damage the special values of the Monument.
- The broader range of uses that would be authorized for the proposed corridor would also increase the risk of contamination from activities in the corridor and the amount of damage from activities to construct facilities and to access the area. (Introduction of noxious weeds in the Monument's "Diversity Emphasis Area" by the soil disturbance a mammoth corridor require would not increase the type of "diversity" the Monument was established to protect—and directly contradicts stated Monument planning direction.) It is likely that more development would occur based on the location of the new corridor—in fact, that is why these larger corridors are being identified: to increase the opportunities for energy development projects. The impacts of expanded development would place an unacceptable burden on the Monument.

The corridor in the Cascade-Siskiyou National Monument is also instructive for the broader issues that arise in placing the proposed energy corridors on public lands in general.

- Some places are not suitable for designation of energy corridors under the accelerated process and wide range of uses set out in Section 368 of the Energy Policy Act. These places include: Wilderness Areas; Wilderness Study Areas (WSAs); National Parks; National Wildlife Refuges; National Monuments; National Conservation Areas; other lands within BLM's National Landscape Conservation System (NLCS), such as Outstanding Natural Areas; National Historic and National Scenic Trails; National Wild, Scenic, and Recreational Rivers, study rivers and segments, and eligible rivers and segments; Areas of Critical Environmental Concern (ACECs); Forest Service Roadless Areas; threatened, endangered and sensitive species habitat, as well as critical cores and linkages for wildlife habitat; citizen-proposed wilderness areas and other lands with wilderness characteristics.
- Siting corridors along existing highways and/or right-of-ways is a good start, but further inquiry is still necessary before placing large, intensive use corridors. In this context, it is also important to consider that the corridors will draw additional projects. As a result, where an existing right-of-way is not along a road, is along a narrow or unpaved road, or is along a road through sensitive areas (such as citizen-proposed wilderness), designation of the substantial energy corridors envisioned by the Energy Policy Act may not be appropriate.
- Where the federal agencies make a reasoned determination that a location is safe and suitable for a large energy corridor, it is still essential to assess necessary limits on the construction and use of corridors. Responsible management practices can help to diminish the potential impacts on both human health and the natural environment. By mandating these measures in the Programmatic EIS, the federal agencies can best ensure that they are uniformly applied and most effective. For instance:
  - if there is a watershed nearby, then oil and gas pipelines may not be an approved use;
  - if there is valuable scenery or wildlife habitat present, then buried lines may be required to reduce impacts on visual resources or wildlife;
  - if there is fragile vegetation, then only a narrower corridor may be permitted.

The federal agencies have a critical responsibility in designating energy corridors. They should fulfill this responsibility by first ensuring that they consider all relevant information on the values of the public lands. Then, the agencies should avoid certain areas altogether, such as the Cascade-Siskiyou National Monument, and, for those areas where corridors can be responsibly located, apply conditions to minimize the risks of environmental damage.



Mr. RADANOVICH. Thank you, Mr. Willis, for your testimony. I appreciate that.

Next is Mr. James Avery with San Diego Gas and Electric. Mr. Avery, welcome to the Subcommittee

STATEMENT OF JAMES AVERY, SENIOR VICE PRESIDENT—ELECTRIC, SAN DIEGO GAS AND ELECTRIC, SAN DIEGO, CALIFORNIA

Mr. AVERY. Good morning, Mr. Chairman, ladies and gentlemen. Thank you for this opportunity to speak.

I am not going to read any comments into the record. You have a copy of my testimony before you. What I would like to do is to address some of the questions and some of the statements that have been raised by yourselves. In particular, let me start with talking about conservation.

When San Diego Gas and Electric Company took over after the energy crisis getting back into the business of supplying the power to our customers, we decided that we had to start with what we call a balanced energy portfolio, and what that means is we look first for conservation.

San Diego Gas and Electric is very proud of the accomplishments that we have been able to realizing in our conservation efforts over the years, so much so that if you look at our company we have among the lowest usage per customer of any utility in this nation, and that is from the Maine borders to Florida to California, and that is largely due to our conservation efforts.

Also, the balanced energy portfolio calls for what we call demand response programs. That means getting our customers involved in helping to curtail their loads as a way of serving future supply, meaning if we can have our customers change their mode of operation to reduce power at the time when it is needed elsewhere in our system, it is another way of essentially doing the same thing.

Third on that list is renewables, the development of renewable energy. San Diego Gas and Electric has been recognized as the leader in this country for adding new renewables a percentage of our total energy portfolio just over the last two years, and we have an aggressive program to triple that effort over the next two years, all because we feel it is prudent to pursue renewables before we look at fossil generation.

At that point, and only after that point do we then look at new sources of energy from the format of either natural gas or coal or other resources, but in looking at those efforts, and even look at the renewable energy that is available to us, we need new transmission. If I look into San Diego, we have not added any transmission infrastructure in our system in over 20 years connecting us to the outside world. We have been able to get by over those years because of our conservation efforts and because of our other programs, and because we have been able to grow into our system.

But we are at a point where if we are to continue to grow and to add to our economy we need new infrastructure to get us there. San Diego is home to over 16 military bases, over 125,000 military and support personnel, and we are the home of the Pacific Fleet, and yet if you look at our system we basically only have two corridors connecting us to the outside world.

The fragility of that system is such that if we lose one substation connecting us to the north at any time of year, not just during our summer peaks, we will suffer outages. We have had an instance in February of 2001 where we lost the connection to our northern substation. We had to blackout roughly 300,000 customers in February, one of the lightest load months of the year. So new infrastructure is something that we desperately need in our region.

If I also look at what new infrastructure can do for us, we have been in a situation where in order to get by day by day we have to depend upon older power plants that in this case are over 50 years old. And if I look at it from the standpoint of some of the comments that were made earlier, the notion of what does that do to the environment, well, these power plants are not the cleanest, they are not the most efficient.

Yet if I look just to our borders to the east, there are thousands of megawatts of new generation, highly efficient and that pollute a small fraction of the older power plants that just aren't available because of a lack of transmission. Today, those inefficiencies are costing our customers over $200 million a year. That equates to about a penny per kilowatt hour.

When I look at the cost of energy, even at today's gas prices of being somewhere in the neighborhood of five cents a kilowatt hour, one penny is a 20 percent premium that we are paying because of inefficiencies on that transmission network today.

With that, I open myself up for any comments or any questions.

[The prepared statement of Mr. Avery follows:]

Statement of James P. Avery, Senior Vice President—Electric, San Diego Gas & Electric Company

Mr. Chairman, Ladies and Gentlemen, my name is James P. Avery and I am the Senior Vice President over the electric operations for San Diego Gas & Electric Company ("SDG&E"). I would like to thank you for providing me with this opportunity to share my experience in siting new transmission facilities, but most of all, for taking the time to involve yourselves with what I believe is a very important issue that is facing this country today.

SDG&E provides electric utility service to 1.3 million customers in and around San Diego, California. San Diego is the nation's eighth largest city and the nation's sixth largest county, with an economy in excess of $70 billion of goods and services per year, and SDG&E is the sole electric utility serving this area.

SDG&E also provides electricity to many critical defense facilities. San Diego is the west coast home base for the U.S. Pacific Fleet. Our service territory includes Camp Pendleton, the largest Marine Corps Base in the US, as well as 16 Navy and Marine bases. The total military population on these bases exceeds 100,000 military personnel and over 20,000 civilian personnel.

As I look back at the energy crisis of 2000 and 2001, and the time periods before and after that, perhaps the most important lesson we should take away is that California, and this country in general, has become dependent on inefficient and antiquated power plants and transmission infrastructure. Here we stand six years after the crisis, and very little has changed.

While it is true that several new power plants and some new transmission lines have been placed into service over the last few years, we are still dependent on infrastructure that was largely constructed many decades ago.

Over the next decade, California must construct over 15,000 megawatts of new generation in order to meet the needs of our growing economy. At the same time, we will have to replace an equal amount of generation as older power plants are retired and removed from service. In addition, new transmission lines will be required to enable movement of power and energy from these new generation sources to local load centers, and to alleviate congestion that has come about as a result of growth over the past two decades. Putting it very simply, our investment in generation and transmission has not kept pace with our economic and physical growth.

As a result, our interstate transmission system has become congested making it inefficient to move energy between generators and our customers.

Today, our customers in the San Diego region pay over $200 million each and every year to buy our way around the inefficiencies in a transmission infrastructure that was designed to serve the loads of 20 years ago. And congestion can be found on virtually every transmission network located across this country.

I did not come here today to complain about our problems. I came here today to inform you about what we are doing to solve them so you can help us to make these solutions a reality.

First and foremost, SDG&E is committed to promoting our energy conservation initiatives. Second, we are pursuing demand response programs to enable our customers to become a part of the solution. And third, SDG&E has been recognized as a leader in this country for expanding the development of new and clean energy from renewable resources such as wind, geothermal, biomass and solar energy. For example, SDG&E has contracted with Stirling Energy Company for what will become the largest solar energy power plant in the world. But to deliver this energy, a new transmission line crossing federal land is needed. In addition, federal land will also be needed to site the Stirling Energy solar power plant.

To meet these needs, and to reinforce the existing transmission network that serves the San Diego region, SDG&E has proposed a new 500 kilovolt transmission line known as the Sunrise Powerlink. The Sunrise Powerlink will be the first new transmission link built to serve the San Diego region in over 20 years and will increase the deliverability of power into the region by over 40 percent. At the same time, the Sunrise Powerlink will be capable of delivering approximately 1000 megawatts of clean and efficient energy from renewable resources while reducing costs through the elimination of some of the inefficiencies that exist in our transmission network. The elimination of these inefficiencies alone will save our customers over $100 million per year.

The Sunrise Powerlink will originate in the Imperial Valley and extend about 140 miles west to the center of SDG&E's system. To do this, we will have to cross approximately 40 miles of federal land under the control of the Bureau of Land Management. In addition, this line will come in close proximity to other federal lands under the control of the Department of Defense. SDG&E is committed to working with these agencies to ensure that this line is designed and engineered to meet strict environmental standards. To date, both the Bureau of Land Management and the Department of Defense have worked collaboratively to move this project along. In this regard, we acknowledge the recent efforts of the Department of Energy to implement regulations governing transmission development on federal land under authority granted by the 2005 Energy Policy Act.

But other obstacles still exist. There are competing interests for the use of federal land. For example, our recent experience suggests that federal land managers suffer serious staffing constraints making it difficult to timely and effectively address access issues. My request to you is that you send a clear message to all federal agencies to place a high emphasis on the use of federal land to support new energy infrastructure that is critical to the future of this country.

Our efforts are not stopping there. Beyond our service territory, we are supporting the study efforts that have been initiated by the Governors of California, Nevada, Utah and Wyoming, who are working together to spearhead the development of the Frontier Line. The Frontier Line is a proposed new interstate high-voltage electric transmission line proposed across the Western U.S., originating in Wyoming and with terminal connections in Utah, Nevada and California.

The utilities involved in the study work are Southern California Edison, Pacific Gas and Electric, Sierra Pacific Power, Nevada Power, Rocky Mountain Power, Utah Power and SDG&E. This partnership will work with other players in the region that are planning transmission expansion, including National Grid, Arizona Public Service and the Wyoming Infrastructure Authority. This effort will also coordinate with the proposed TransWest Express project.

The Frontier Line has the potential to spur the development of thousands of megawatts of new renewable-generated power and clean coal power to consumers in the southwest. The Frontier Line, with its associated generation resources, is the largest clean and renewable energy infrastructure project ever proposed in the Western U.S.

Behind the need for studying such development is the fact that the West is the fastest growing region of the country. Accordingly, new electric infrastructure is required. In addition, the need to diversify the region's energy resource base, providing further protection for consumers against energy price spikes and shortages, is essential.

The Frontier Line project also has the potential to:

- Strengthen the reliability of the West's transmission system;
- Reduce reliance on foreign energy imports and enhance domestic energy security; and
- Encourage new technologies that can accelerate the development of renewable energy generation and reduce the cost of controlling emissions from the West's vast fossil fuel resource base.

The need to serve the public demand for electricity, along with the need to be sensitive to land use and environmental preservation, are not mutually exclusive. Rather, these needs must and can co-exist. Regulators need to recognize that there will always be opposition to infrastructure development by special interest groups. While such groups may raise issues of concern for consideration, regulators must weigh these concerns against the need for electric infrastructure and strike a balance where new infrastructure is allowed to be built while at the same time protecting the environment. Further, we need to work together to better educate the public in regard to the need for infrastructure development. SDG&E fully supports working with community groups and holding open stakeholder meetings for the exchange of ideas as we have demonstrated with our public outreach efforts on the Sunrise Powerlink.

In summary, we must all work together to do the right thing for the public benefit. What we need from you is your support and your commitment to remove any unreasonable obstacles, and to send a clear message to all federal agencies to place a high emphasis on supporting new energy infrastructure that is needed to serve the future needs of our consumers. As we say in San Diego, "we are serving you today and planning for tomorrow".

Thank you again for the opportunity to speak today.

Mr. RADANOVICH. Thank you, Mr. Avery, for your testimony. I appreciate that.

I would like to get a comment from the panel, first of all, because of a statement made about the width of these corridors. Mr. Willis, you had referred to a 3,500-foot width where I guess through the Siskiyou-Cascade region that there may be one existing that is now 200 feet wide. Maybe we can get an explanation from our gentleman from the Department of Energy on the need for the 3,500-foot width, and is that consistent with every easement being proposed in this new energy plan?

Mr. MEYER. The team agreed on a 3,500-foot width as the fundamental approach. We recognize that when you are dealing with specific areas that you may want to think about alternatives to fit the particular circumstance. But I think it has been pointed out earlier that when you are talking about co-locating facilities within this corridor you do need considerable width. So I don't encourage people to think that we can scale down a whole lot from that 3,500 feet. I think in some cases we might have to go wider.

Mr. RADANOVICH. Now, what would necessitate a wider, is this the size of the towers or the lines——

Mr. MEYER. No.

Mr. RADANOVICH.—physically or is it a fire danger or?

Mr. MEYER. The fire danger is a good example, yes, if why you might want to a wider separation.

Mr. RADANOVICH. Mr. Willis, you mentioned in your testimony about the—this is easements over public land in order to get some movement of electricity, and yet the description of all the different—you listed, quite effectively I think, in your presentation every kind of public land that is out there. If you count all those up and using my home state of California as an example, there is not much land available to be able to move energy into California.

Do you say go around it or do you not support the concept of this Frontier Line, and if you do, are you saying you just don't want it

on the Cascade-Siskiyou region? Maybe you can enlighten me a little bit on that.

Mr. WILLIS. Mr. Chairman, I am here this morning to point out a very important biological area that the line needs to avoid because I think there is serious reasons that prudent planners would want to avoid it. I am not an energy expert, and it seems you have a very daunting task.

I think I have a very general responses in that, as I said in my written testimony, I would like to see a lot more leadership from Congress on conservation of energy, on reduction of consumption, and examining the whole can of worms that that opens up.

I think there is a fundamental question as when is this growth going to stop, when is this energy debauch, if you will, going to stop, and what will be left when it does. It seems that we take as self-evident that the purpose of human beings is to consume energy.

I come from a perspective that says the purpose of human beings is to be stewards of creation, and I would like to see that reflected in the congressional energy policy a lot more. That is a very broad statement.

Mr. RADANOVICH. Well, let me ask you this question because as I look at the—and if you know anything about California, which I am sure you do, there is a spine that goes down the eastern part of California. Almost all of that is public land.

Mr. WILLIS. Mr. Chairman.

Mr. RADANOVICH. No, I am sorry. But if you don't support a means of getting electricity over the Sierras into California, the only other place is the ocean, and I know that California is having a heck of a time getting any type of L&G facility off the coast of California to deliver natural gas. As you know, electricity generation in California is becoming more and more and reliant on natural gas. There is no support for doing that either.

You can't bury your head in the sand when the population is increasing in California and the electricity demand has gone up. You have to be able to get it somewhere.

So if you are here to say you just don't want it in Cascade-Siskiyou, that is fine, but the fact of the matter is we have to get them somewhere, and it concerns me because there is a lot of public land up in the Sierras, all up and down from north to south along the eastern part of California, and it is going to have to come somewhere cross there.

I would like to hear, and I will say this and then move on to Mrs. Napolitano, I don't know that there is any project for domestic development, energy development in California outside of wind and solar that a lot of—I don't know of one that an environmental group will support, and this really concerns me because then the alternative is always conserve, conserve, and I would like to see just one energy development project in the United States that is not wind, that is not solar that an environmental group will support.

Then I think I would love to do a hearing, if somebody would do that out there, I will do a hearing on conservation. I would love to be able to do that. But I have no knowledge of even one energy development project in the United States other than wind and solar

that an environmental group like yours will support. Maybe you can identify one for me.

Mr. WILLIS. Mr. Chairman, Oregonians are fond of saying they don't need to go to California because it is coming to us more and more every day.

Mr. RADANOVICH. That is not the answer though. Do you support one, one energy development project in the United States other than wind and solar?

Mr. WILLIS. I am not familiar enough with the bigger energy picture to give you an answer to your question.

Mr. RADANOVICH. Thank you very much, sir. And I will defer to Mrs. Napolitano for questions.

Ms. NAPOLITANO. Thank you, Mr. Chair.

There are numerous questions and one of them is not a question but a statement that I wish we had Mr. Desmond, the undersecretary of energy affairs from the California Resources Agency present on this panel, because I would have loved to hear what the state is looking at, and hope that we will ask for his input into this panel, into the hearing.

Then I would like to move on to Mr. Meyer. Would the proposed Frontier Line between Wyoming and California use a corridor identified in Section 368, Westwide Energy Corridor process, and exactly what is the Department of Energy's role in the Frontier Line, if any?

Mr. MEYER. We certainly support major projects such as the Frontier Line. That is, we recognize that there is a need to develop substantial quantities of new generation to meet future requirements. We certainly don't want to become involved in any prescriptive way about which kinds of projects should be developed and where. We think that is the role of other parties.

But insofar as the role of the 368 corridors with respect to the Frontier Line project, we certainly—we have been, in preparing the map that you have seen, the corridors that have been proposed take into account inputs from industry sources about a number of potential projects, the TransWest project that was mentioned, the Frontier Line is another.

There is an intent here to be sure that these corridors under 368 are indeed relevant to the kinds of developments that are most likely to come froward and be actively proposed and appear economically feasible from an investment point of view, and things of that kind.

So there is that kind of fit or coordination, if you like, involved here.

Ms. NAPOLITANO. Great, and I have a question because in my days in the California State Legislature I sat on CPUC Committee, and I continually heard from the providers of electricity to California about recouping stranded costs. We have nothing in here that tells us what is going to be in the future for increase in rates to the consumer which will be the investment put in by the energy facilities to be able to recoup their investment in there.

Now, everybody sounds fine. Who is going to pay for this? Is it the ratepayer? Is it a Federal government subsidy? Is it the groups themselves that are going out of the generosity of their heart pay for these and allow the ratepayers to be able to realize the savings

because there is reference in some of the testimony about the millions of dollars that the California consumer will be benefiting from, and I ask anyone to tell me what project has ever resulted in a decrease in cost of energy to the consumer. Anybody.

Mr. AVERY. I would be happy to address that.

Just two years ago, San Diego Gas and Electric put what we call the Miguel Mission No. 2 project in service. That project cost $50 million on the part of our ratepayers. That project reduced rates by $100 million a year. The Sunrise Power Link Project, a billion dollar project, will reduce rates to my customers by over $100 million a year.

Ms. NAPOLITANO. Translate that, sir, please, into what the consumer actually saw in their electricity bill.

Mr. AVERY. In the case of the Miguel Mission project, that equated to about a half a penny per kilowatt hour reduced costs.

Ms. NAPOLITANO. And how big is Miguel? Is that the only area that was affected?

Mr. AVERY. Actually, that was to serve the entire San Diego Gas and Electric area. We have so much congestion on our system, and just like congestion on the interstate highway system——

Ms. NAPOLITANO. Right.

Mr. AVERY.—where we have the inability to move energy from lower cost power plants from one location to another, the advance or the increase in transmission infrastructure allows us to move the energy around so much more efficiently that we can actually save money.

Ms. NAPOLITANO. Sir, I understand the need for increasing the transmission ability, capability, and upgrading the infrastructure. I understand that.

My concern is the cost to the ratepayer eventually. Maybe not now, but in the future, and Mr. Avery, would you mind addressing that? Have you looked at that?

Mr. AVERY. The addition of transmission facilities is a very small part of the cost of delivered energy to consumers, but it has an enormous impact in terms of both the reliability benefits and the economic benefits that it affords. That is, it enables generators to serve from lower-cost generation than would otherwise be serving the consumer.

So in that sense, transmission lines are a bargain. Another way to think about this is that it in some ways it is difficult to overinvest in transmission because the upside, if you spend too much on transmission, it is only going to cost consumers a little bit. If you spend too little, they pay very dearly for it.

Ms. NAPOLITANO. Well, I don't see any consumer group here other than the gentleman, Mr. Willis, who can really—and he is advocating for the northern part. My concern is for all of those that are going to be impacted and served by. Mr. Chair, I will defer and have other questions.

Mr. RADANOVICH. Thank you, Mrs. Napolitano.

Mr. Udall, did you have any questions?

Mr. TOM UDALL. Thank you, Mr. Chairman.

Earlier on I asked, I think, in my opening the question is it fair to release carbon dioxide and mercury and other contaminants in Wyoming when this pollution would never be allowed in California.

Can the witness from San Diego—excuse me.

Mr. AVERY. I am Mr. Avery.

Mr. TOM UDALL. Mr. Avery, could you put a plant like the plants that are planned—there are 31 coal-filed plants that are planned in the inner mountain west, and could you locate one of those in your district, in the area in Southern California around San Diego? Could you propose that now and get it approved through regulators?

Mr. AVERY. Not only could I not approve or propose in San Diego, I could not propose it in Wyoming. The State of California would not yet me enter into a contract for power from Wyoming, from Utah, from New York if it is going to be a—I am going to call it the old science technology.

The only way the State of California would let me enter into a contract with any power on the Frontier Line or any transmission line is if it would be meeting the same environmental standards that would be acceptable in the State of California, which is why when we look at the Sunrise power link, or the Frontier Line, we are looking first at renewable energy, which does not pollute, and the primary purpose of doing that is so I can shutdown older polluting power plants that are located on the coast.

Mr. TOM UDALL. Now, the Governor of California has talked about the plants that are—just like you have—the plants that are going to be planned are going to be near zero emission. Yes, I believe his energy person said something along the line that we were going to achieve—Desmond said we are going to achieve something near zero emission. So he is advocating what you are advocating.

Then we have the Governor in Wyoming saying near zero emissions is just not realistic. We would all like to have it, but it is not going to happen.

What we are talking about here is we have the technology. I mean, it is true, isn't it, that if you gasify coal you can get to near zero emissions? Is that correct?

Mr. AVERY. Yes, that is correct.

Mr. TOM UDALL. And is that what is planned in these 31 plants?

Mr. AVERY. At this point in time no plants have been planned as it relates to serving the State of California. But before California utilities will be allowed to enter into contracts that will allow for the development of new power plants, they will have to meet that standard. Otherwise I will never be allowed to enter into contracts to buy that power.

Mr. TOM UDALL. So, Mr. Avery, have you put that word out to the folks that are out there doing this planning? Because they are in the permitting process right now, they are getting ready to build these plants. They are not using the technology that would get us close to zero emissions, and indeed they are building the plants. There is not a need in these states for this electricity. This electricity is going over to California, so there is a big disconnect here is the way I see it.

I mean, the Governor of California and you and others can make pronouncements that you wouldn't buy it, but the plants that are being built in these states and that are being planned in these states, they are using the older technology. They are not using near zero emission technology.

So what is your answer to that, and what are you doing to aggressively get out there and let these people know we are not going to buy it if you are producing it in a dirty fashion?

Mr. AVERY. Well, as I mentioned, in our balanced energy portfolio approach we do solicitations for energy from our own regions, from neighboring regions, and from far away, and in our discussions with all potential developers we make that very clear. But first and foremost we pursue renewables. We see that there is a wealth of opportunity elsewhere in this country, outside of the San Diego region, where there is no reason why we can't increase or dependence on renewable energy, and get away from the use of fossil fuels. That doesn't mean we have to abandon them completely.

We believe that there is an opportunity to develop new technologies, advance new technologies so we can make new power plants cleaner than old power plants. We don't see those as being contradictory with the use of the power. We just think that it has to be cleaner.

I can tell you right now in every discussion I have had with every California legislator or regulator, it is don't even bother looking east if it doesn't meet our standards, and every utility fully understands that.

Mr. TOM UDALL. Ms. Nelson, how will you decide to compensate tribes when energy corridors cross tribal lands?

Ms. NELSON. Well, I guess we have a policy in Utah when it comes to energy development that we engage all stakeholders, and we work very closely with the tribes to try and identify what their needs are, and what their needs are both in terms of energy delivery and also in terms of economic development.

So we very carefully consider those elements when we make our evaluations, and we work very closely with them, and we are increasingly making efforts to work with them to identify what their needs are so that they can realize their energy and economic development goals. So I would say in recent years our relationship with the tribes have improved significantly.

Mr. TOM UDALL. Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Mr. Udall.

I now recognize the very patient gentleman from Arizona, Mr. Hayworth.

Mr. HAYWORTH. Thank you, Mr. Chairman, and to the witnesses, thank you all for being here. It is worth noting that I am honored to serve on the Subcommittee—well, actually both Subcommittees holding the joint hearing today, and especially water and power, and how interesting it is the abundance of water here in the east as the heavens open up over the past few days, and how we are all in need of power no matter the challenges we confront and the different points of view brought here.

I think by unanimous consent, Mr. Chairman, we can all agree the West is best, and we appreciate all of you coming here today to offer your points of view.

It will come as no surprise that I would like to direct my questions to my friend from Arizona Public Service, Mr. Chairman.

Bob, thanks for coming back. I know it is a hardship leaving that 110 degree weather in the desert, but we appreciate you being here.

Mr. Smith, if you would not mind, please give us a general overview of your experience with siting transmission lines in Arizona, working both with the Arizona Corporation Commission and the various Federal agencies of all involved in that process?

Mr. SMITH. Thank you, Congressman Hayworth.

It is a pleasure to be here even if I did come into rain storms from Arizona. Do appreciate the opportunity.

In Arizona, the Arizona Corporation Commission, or the ACC, has instituted a siting process that we found to be both effective and efficient for a couple of reasons.

First of all, there is a line siting committee that reports to the Arizona Corporation Commission. There is the one entity in the State of Arizona charged with issuing a certificate of environmental compatibility for the entire transmission line route within the state.

The siting committee consists of representatives that are from various state agencies, and that ensures that all the interests of the state are considered.

Third, the process involves some timelines that in my experience for the last five years I have worked in planning and sited permitting transmission lines really brings these permits to resolution very quickly.

With respect to the Federal agencies, we have had very, very good experience working with BLM to designate intra-state corridors, and in fact have utilized these corridors on several projects, and it has facilitated the permitting of these projects.

The experience with the Forest Service has not been quite as smooth, probably because of lack of consistency between the various forests with respect to their requirements.

Mr. HAYWORTH. Just to follow up, what has caused major hold ups in the siting process in the past, and is there a way we can avoid these problems in our attempt to open some future lines?

Mr. SMITH. I think better coordination between the Federal process and the state processes, and that is one of the things that I would hope would come out of the various provisions of the Energy Policy Act would be to ensure that the various studies, documents, reports that are prepared and the timing of those reports and review, that the process is facilitated, that you can go through the process parallel on both the state processes and the Federal processes.

Mr. HAYWORTH. Mr. Smith, one of emerging area of contention, if you will, is something you touched on during your testimony when you stated that wider corridors that are currently being proposed are necessary to secure the transmission lines from the threat of wild fire.

Now, we have seen in Arizona in recent days one of the challenges—euphemistically putting that—the challenges of the fire we saw in Oak Creek Canyon and I believe called the Brins Fire, and then some problems earlier up around Flagstaff.

Could you relay for the panel why in your opinion these wider corridors are necessary, and specifically dealing with the events of recent days in Arizona, how wider corridors might help?

Mr. SMITH. Certainly. Traditionally I think we have had a balance of economic considerations, environmental considerations, and

reliability considerations that historically have resulted in a number of transmission lines within a common corridor being placed fairly close together. In some cases, the only restriction is that you have enough of a spacing between the two circuits so that a tower falling over will not actually fall into the adjacent tower.

What we are finding in Arizona, especially the last four or five years, is that a lot of these long distance transmission corridors with multiple lines are in areas that are prone to forest fires, and when the lines are close together you can get either a requirement from the folks fighting these fires to take the lines out of service for their safety while they are trying to do their job, or in fact the smoke from the fire will actually get up into the lines and cause outages.

If we are allowed to build these transmission lines with some more spacing, you can into a situation where you can keep—say there is two lines next to each other, you could keep one of the two lines in service while fire fighting activities are going on in the adjacent circuit, or maybe the fire itself has taken it out.

The loss of two transmission lines, two major transmission lines into a large load center is significant, and we have struggled keeping the lights on in Phoenix during some of these occurrences.

Mr. HAYWORTH. Well, speaking of lights, I guess we have gone into red. I don't have any time to yield back.

Mr. RADANOVICH. Your lights are red, pal.

Mr. HAYWORTH. That is it. Thank you for the time, Mr. Smith, and panelists, thank you. And again, Mr. Chairman, thank you for your generous indulgence.

Mr. RADANOVICH. Thank you, Mr. Hayworth, and I appreciate your interest in this subject.

The Chair recognizes Ms. Herseth from South Dakota.

Ms. HERSETH. Thank you very much, Chairman, and I thank all the witnesses. I apologize for not getting here for your testimony. That tends to happen to many of us when we have ongoing other committee hearing simultaneously. But I did walk in at the end of Mr. Udall's questioning and the question posed regarding tribal lands, I believe, and I know that you are responding about the improvement in relations with different tribes across the country as it relates to a number of issues with these rights-of-way.

I have heard from some of the tribes that I represent in South Dakota, I represent nine tribes, about some general concerns as it relates to right-of-way issues, and then just last month specifically from a tribe I represent about the Section 1813 in the Energy Policy Act of last year that does require the Departments of Energy and Interior to study the energy right-of-way issues on tribal lands.

So Mr. Meyer, this review, coupled with a series of recommendations, is due to be submitted to Congress no later than August 7th of this year. Can you tell me if we are expecting the reports to be completed at that time?

Mr. MEYER. We, and my colleagues from Interior, we are working very industriously on a draft report that we think will be responsive to the questions that Congress has asked, and so we look forward to delivering it to you.

Ms. HERSETH. So you anticipate that the first part of August we will be seeing even some just preliminary findings or assessments that are required by that report?

Mr. MEYER. We will put out a draft report for review by the tribes and the companies before we produce a final report. So we are running into some challenging issues so far as schedule is concerned because the tribes and the companies are very interested in this report. They would like very much to see a draft now.

But if we go through that cycle, we may have difficulty meeting the August 8 deadline.

Ms. HERSETH. I appreciate your candor in letting me know how it is proceeding.

Mr. MEYER. Yes.

Ms. HERSETH. Of course, the Administration and so many of us on this Committee, you know, we recognize that tribal lands are completely unique, and I think that when we talk about the consultation requirements built into different legislation certainly your counterparts at the Department of Interior, I am curious as to—you know, if you can share some ideas of how you plan to deal with tribal lands in the corridor designation process. You know, have we begun a consultation with different tribes that may be affected in the Southwest or in my part of the world?

I am just curious as to where we are in the consultation process because the map that was submitted here for this hearing includes some gaps and I can't help but noticing, even though South Dakota is not on the particular map I was looking it, it does seem that the lines stop when you get to the boundaries of tribal lands. And so I am just curious if you share some of initial ideas of how we are going to deal with land in trust?

Mr. MEYER. Well, the corridors under 368 are on Federal lands, and do not affect or pertain to the tribal lands. Now, we are talking in consultation with some tribes who are interested in having corridors on their lands, and so that means, at least in discussion terms, talking about a corridor on Federal land that would then abut a matching corridor on the tribal lands.

But one of the issues that we are concerned about is that we want to be sure that there is an alternative if at all possible so that companies who were seeking to use that corridor on the Federal lands would not be faced with no option but to go through to cross the tribal portion.

So we want to avoid that circumstance, but at the same time if tribes are very interested in having corridors on their part of a route, we think naturally we want to try to be accommodating if we can.

Ms. HERSETH. Just to be clear before my time runs out, so for those tribes that have expressed an interest in having the corridor, you are working sort of one on one with each tribe, but you haven't set up a task force or an advisory board of any kind that deals with this more generally, perhaps with a tribal leader as a designate on a task for or advisory board? Are you dealing with it specifically as well as more generally in the process through some sort of task force or advisory board?

Mr. MEYER. Well, we are dealing with it pretty much on a tribe-by-tribe basis. There is not a large number of tribes that have

expressed interest in having such corridors on their lands, and it is necessary to deal with these questions very specifically in terms of the particular situation.

Ms. HERSETH. Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Ms. Herseth.

Mr. Kildee, any questions?

Mr. KILDEE. Well, I just came over primarily to make sure that as we deal with this that we respect the sovereignty of the tribes, and that is my reason for my presence today.

Mr. RADANOVICH. All right, thank you, sir.

I did want to ask Dr. Nelson, if you could in general give me an idea—you know, we have the energy bill now, and it calls for the corridors. How can the Federal government further help the states move forward with this line, and to help expedite the process?

Ms. NELSON. Well, thank you, Mr. Chairman, for that question. I think it is an important one.

First of all, let me just say that the Energy Policy Act has been very effective, and we appreciate many of the aspects of the Act. We think that it is helping us move forward on energy efficiency. Utah has one of the, I think, most aggressive energy efficiency plans and policies in the West, and we are looking to the Energy Policy Act to support us as we achieve those initiatives.

We also think that it has allowed us the opportunity to increase renewables, and that a fundamental part of getting more renewables on line and improving our overall air quality profile, including green house gas emissions, is going to be bringing on additional renewables and promoting those very cleanest technologies which impact the environment, the Energy Policy Act also supports, as I mentioned previously with coal gasification. It is infant technology, and what we are going to be looking at are bringing what might be considered prototype plants, and there are concerns about are they going to be available similar to traditional plants.

So with that said, I would encourage that there be continued incentives for integrated gasification combined cycle and other advanced coal technologies because I personally believe that our energy future is going to be made up of increased energy efficiency, improved conservation, advanced coal technologies, and a lot more renewables.

So continued support for renewables through the production tax credit I think is going to be essential, continued support for IGCC, and I think continued support for this 368 process. As I mentioned before also, having that increased certainty about corridor designations, about siting not only benefits the development of this project, it also helps us to better understand how we are going to engage in mitigation, and we in the West, I think, have become very, very good at environmental mitigation, looking at wildlife habitat, and enhancing the mitigation that we presently do when energy developments take place.

So I think the IGCC support, just in summary, continued support for renewables through the production tax credit, and also continued support for the 368 process is going to be fundamental because people will view that all of these things can be brought on, and that we are very creative and in terms of our ingenuity, and we

can develop transmission line that will allow us to realize all of our objectives.

Mr. RADANOVICH. Dr. Nelson, is there a target date as to when clean burning or gasified coal is going to be on board, and will increased funding via tax credits, more of that help us get their faster?

Ms. NELSON. I do believe that incentives can help us get there faster, absolutely.

In response to Congressman Udall's issue, it is really a matter of timing. It is going to take awhile for the technology to come up, and let me just speak for my state. We need new base load facility in 2012, so very, very soon, and we are actively engaged in a process right now to identify what that facility will look like, and we are considering a coal plant, and the serious discussion taking place now is whether or not we can have that be an integrated gasification combined cycle plant.

A limiting factor is transmission, where that plant will be located. So getting the transmission on line is going to help to facilitate getting these technologies in place because if they know that if they build the plants, that that power can be delivered to loads and allow us for bringing on other resources that can balance when there might be some capacity shortfalls from those plants, I think is going to be critical as we move forward to this prototype phase.

Mr. RADANOVICH. Thank you very much. One more question regarding the easements because I agree, it seems to me like a 3,500-foot wide easement is a bit much, at least in my limited knowledge. Perhaps our gentleman from the Department of Energy or Dr. Avery or anybody else here can kind of give me an idea of how did we—how did we land on that number, and let us talk about what the easement looks like?

Does that mean that there will be bare ground between both of the—you know, both ends of that easement? Do you clear cut everything in that easement, or is it an easement—is this something that is supposed to serve power needs for the next 100 years, for the next 500 years? How do we go about determining the width of those easements? Someone want to tell me?

Mr. MEYER. Well, there is such ecological diversity in the areas that you are going through that it is very hard to come up with a uniform answer that will satisfy the kinds of requirements that might be involved.

The North American Electric Reliability Council sets requirements pertaining to transmission lines and rights-of-way, and that his the place where one would begin in terms of what requirements need to be met with respect to transmission lines.

But the co-location with gas pipelines raises questions of a different sort, and these are challenging questions, and I don't mean not to be responsive to your question, but it takes a great deal of—it will take some fine tuning corridor by corridor to come up with the appropriate response to the—the notion of the 3,500 feet is—it is a number that the agencies identified in the course of their analysis thus far, and as a group we are comfortable with that, but we certainly don't mean that that is going to be adopted on a rigid basis.

Mr. RADANOVICH. The question for all witnesses.

Mr. SMITH. Yes, if I might add a little bit to that. One of our concerns, and logistically I think you probably have to work with one number. If we had a situation where we believed we needed to build one transmission line in the future, and that was all we needed to build, and there was nothing there, then a fairly narrow corridor would probably work. But a lot of these corridors are corridors where there are already a number of existing facilities, and you may have a facility that has some kind of engineering issue on either side of it that would make it not feasible to co-locate another facility right next to it.

So you need the flexibility to add facilities, to have the spacing that is required for reliability, such as the fire issues we have talked about, and just generally speaking to say the maximum is going to be 3,500 feet. We don't believe that is enough.

Mr. RADANOVICH. You don't believe it is enough really? In your view how wide should it be?

Mr. SMITH. A lot of the corridors that area already designated through the process I believe were 5,000 feet.

Mr. RADANOVICH. Oh, is that right?

Mr. SMITH. Yes, we have asked for a mile.

Mr. RADANOVICH. You know, last month we had a hearing on problems with managing vegetation and rights-of-way on Federal land, and there were some serious problems mostly in the way of fire hazards that were of concern because the narrow easements or some that were not wide enough in order for them to be maintained properly for fire protection. But getting to the number, I think, is kind of interesting.

Anybody else had a comment on that?

Mr. AVERY. I think, as you look at the footprint, people, I think, take away the perception that if you have 3,500 feet that there are facilities covering that entire region. I don't think that is the case. I think what happens is you see individual discrete corridors within the overall corridor planning area.

If I look at our case, we have corridors that run through Camp Pendleton, and we have multiple transmission facilities on those corridors. But the width of the corridor itself where the physical facilities are, the width of a tower and the cross-arms on the tower might be 30, 40 or 50 feet. Yet that sits in an area that may be over 1,000 feet wide, and part of that setback for the overall region is to ensure that other things aren't built near the facilities.

In other words, it is important that if you are going to have an electric facility, an overhead facility, that you don't build anything else in close proximity to it because of the dangers associated with that, and the dangers aren't necessarily something that are brought about because of the physical construction of the transmission facility, they are brought out because the transmission lines that run from tower to tower they blow in the wind, they sway outward, and you have to make sure that you design the facilities so that if you have a long span that maybe goes over a canyon, that the facilities, if they do blow out in heavy winds don't come in close proximity to any kind of other structures.

So it is not just something where you look at a large corridor and assume that there is going to be something covering that entire area.

The other thing you want to do, as we have heard from other members of the panel, the notion that you want to make sure that you have some protection in width for reliability purposes. If I look again just to my own back yard in San Diego, in October of 2003, we had one-third of the county burned down, and in that situation we had three major fires. Five total fires going on in the county at once, and we lost several of our transmission facilities through that process, and we lost a significant portion of our load because of that process.

Had we had just one more corridor coming into San Diego we would have never been in jeopardy of losing the city. And so the idea of having multiple transmission lines right on top of each other and trying to squeeze it down to the narrowest area doesn't help us for reliability purposes. In fact, the criteria that we operate under for the WECC system and the NERC system mandates that we separate the lines for reliability purposes.

We talk about the cost of this, and we talk about the future of this. If we look at just the cost of what happened in 2000 and 2001 with the energy crisis, the billions of dollars of damage that it did to our economy, we could have paid for these transmission lines several times over just in that one occurrence.

You heard the notion that perhaps the transmission is a function of what it does to rates. It is such a small component of rates. But when it is not available, what it does to rates is astronomical. I talked about the congestion, that it sits in the system.

Billions of dollars are spent every year in this country just because of a lack of infrastructure. This infrastructure would pay for itself in a matter of—in several cases, in a matter of months or a couple of years. It is not something that sits there and we worry about it being a burden on the customer. The benefits are just overwhelming to the customers.

Thank you.

Mr. RADANOVICH. Thank you, Mr. Avery, I appreciate it.

Mrs. Napolitano.

Ms. NAPOLITANO. Thank you, Mr. Chair. I am going to have to excuse myself for a few minutes because I have a markup in another committee.

But Dr. Nelson, what is the breakdown of coal versus clean coal?

I know that 20 percent of the California energy needs to be renewable. Is clean coal considered part of that? If not, will the rest of the power running on the line be clean coal or some mix of existing coal-fired power in clean coal and renewables? And will you have enough percentage of the renewables on line in time to serve as a Frontier Line?

Ms. NELSON. I guess I can't address specifically what the breakdown will be, but let me just say that this project is envisioned by our Governors to potentially be a 12,000 at completion potentially, a 12,000 megawatt deliverable facility.

Ms. NAPOLITANO. I am talking about the renewable portion of that required by California.

Ms. NELSON. Yes. And our Governors believe that there is potential for about 50 percent of that capacity——

Ms. NAPOLITANO. I am not talking about capacity. I am talking about renewables.

Ms. NELSON.—to be delivered by renewable power, and that this in fact can help California meet its objectives. Not being from California, I can't specifically address what the California issues are, but I can support that the line is envisioned to allow for substantial renewables which we think can help all of the states within the region.

Consumers want renewables, and we think that we can——

Ms. NAPOLITANO. Are you aware—I am sorry, ma'am, but I have to go. But clean coal, are you aware that clean coal is not considered renewable energy resource for California? It is not.

Ms. NELSON. I understand that, yes.

Ms. NAPOLITANO. OK. I guess, I am not—with the rest of the power running on the line be clean coal. I mean, I am trying to figure out how the energy delivered to California is going to meet California's high requirements.

Ms. NELSON. Madam Congressman, I might defer to Mr. Avery because I think that he might be in a better position to answer this question because he and his company will be specifically engaged in securing the contracts that will help California to meet their——

Ms. NAPOLITANO. For all of California?

Ms. NELSON. Well, at least for his customers, but I think his knowledge of what California policy is places him in a better position to answer that question.

Ms. NAPOLITANO. OK. And as you consider the answer, sir, I also wanted to know who is paying for the actual construction of the Frontier Line for all of you. I would like that for the record.

Mr. AVERY. OK. With respect to the notion of clean coal versus other coal resources, the president of the California Public Utilities Commission has made it very clear to me and to all of my counterparts at the other investor-owned utilities don't even think about bringing anything across this line if it is coal unless it is clean coal. So from our standpoint, I don't see any other option. I don't see anything but clean coal is flowing across that facility.

With respect to renewables, I do believe there is opportunities to advance the development of renewable power for the whole Southwest because of facilities such as this, and that is what we are looking for. When we look beyond our conventional borders, we are looking at renewable resources first.

Ms. NAPOLITANO. OK, if I may then, do you know where those clean coal plants will be developed? Because there is no mention of them and in these May 15 San Francisco Chronicle article it indicates that 31 of the coal-based proposals now in the very stages of permitting processes, none currently plan on using the advanced technology.

Mr. AVERY. And at this point in time I would put this akin to the space program in the 1960s. If we don't start the studies, we don't start the work, and we don't look at the opportunities, they will never come about. But if California is going to continue to be a leader, we have to put projects like this on the table, study it, and determine the feasibility of the——

Ms. NAPOLITANO. But that still doesn't answer my question. I am sorry, but I have a markup that I have to go to. And my concern is that we are saying that California has these great standards because you are the leader. Yet I have not heard of anybody saying

that they are going to build clean coal plants. All I have seen and I have a map of the different coal-fired power plants proposed, and none of them actually stated they are going to be clean coal.

Mr. AVERY. Yes, I understand that. But none of them are looking to California and talking to me. None of those parties.

Ms. NAPOLITANO. I know it is too early, and I am sure that that is something that is going to have to be considered, but who will be financing the construction of the Frontier Line, anybody?

Mr. AVERY. The initial stage of the process is to study the feasibility. Once we complete the studying of the feasibility, we will then look at the right way to look at cost allocation. It will be across the beneficiaries. If power if flowing to California, California consumers will pay for that portion. If power is flowing to other states, those other states would pay for that portion.

Ms. NAPOLITANO. I am talking actual construction.

Mr. AVERY. I am talking about the actual—oh, you mean the actual construction of the facility?

Ms. NAPOLITANO. Correct.

Mr. AVERY. At this point in time we haven't even started talking about that.

Ms. NAPOLITANO. Not defined. Great.

Well, where will the wind farms be located, and is the planning underway now, and how do we know the projects will ever be built?

I know San Diego has a ton of them.

Mr. AVERY. I am sorry. That we have a ton of?

Ms. NAPOLITANO. Wind power, wind farms.

Mr. AVERY. No, actually we only have two wind projects we are participating in. We are trying to advance those into a lot more. We go out—the approach that we take is a solicitation for energy. We go out to the open competitive marketplace. We ask everybody and anybody to bid.

Once we get those bids in, we then assess the feasibility of them. Can they actually finance? Can they actually get their sites? Can they permit? And then we take all of that back to actually a review group made up of different stakeholders, and then the California Public Utilities Commission. Only at that point in time do we then actually enter into contracts.

So at this stage it is still too early to determine where those wind projects will be.

Ms. NAPOLITANO. Now, one of the things that crosses my mind, of course, we talked about the conservation has not thoroughly been addressed, but my other questions would have to do with the cost of clean versus "dirty" energy, and I realize that it is more expensive to build the clean coal plants, but what is the difference in cost between the two that makes it so onerous for us to consider doing those up front instead of having to worry about how else are we going to make up that percentage?

Ms. NELSON. I could just briefly comment on that if you would like.

Essentially the cost difference may not be that substantial. That may not be the major impediment. The biggest impediment, and I am not trying to marginalize that, there is a cost differential, and I think it depends on the study being done what that differential looks like. The biggest issue is the availability of the plants once

they are on line. There have been no major large-scale coal, and when I—I am going to define it as coal gasification plants that have been built.

So when we are looking at these very large plants, and none have been built, and we are looking at 500 megawatt plus plants, and you are not sure that it is going to be available like a traditional coal plant which might be available 90 percent of the time, and maybe you are thinking this plant is only going to be available 80 percent of the time or 70 percent of the time, and so there is real uncertainty around the availability, and that poses real risk, and that translates into real cost for customers. So that is a major impediment so you have to provide other ways to meet that demand if in fact that plant becomes unavailable.

Ms. NAPOLITANO. Thank you, Mr. Chair. Thank you very much for your indulgence.

Mr. RADANOVICH. Thank you, Mrs. Napolitano.

Ms. NAPOLITANO. I will submit other questions for the record.

Mr. RADANOVICH. Thank you, Mrs. Napolitano.

Ms. Herseth, did you have any questions? Oh, I am sorry. Excuse me, Tom. Please.

Mr. TOM UDALL. Thank you, Mr. Chairman.

Mr. Chairman, the maps we have up here are very sketchy in terms of the lines and where they run, and they actually just—they end in some places. I mean, I am looking up here in Oregon, and there is a tribe, there is a big piece of purple tribal land, and the line goes up and then it just disappears, and it comes out the other side. I mean, it would be really helpful if we could get some maps that would detail where we are talking about these lines going.

I know the Department of Energy and the Bureau of Land Management have come up with these, but it looks to me like on two of these areas you have clearly lines, that is the only way it can come in. You have a big piece of tribal land and it comes in one side, and it comes out the other, and it is portending like you can go through this piece of tribal land without actually drawing a line.

I don't understand what is going on, but if any of you could supplement the record on that it would be very, very helpful.

Mr. MEYER. The area that you are talking about in Oregon is the Warm Springs Tribe, and there is very active discussion with the tribe. The tribe is interested in having a corridor on their land, so that is being worked out.

Mr. TOM UDALL. How about the tribe just to the east of Reno? There is a line right through their land there. It is over just to the east of Reno. It is in Nevada, I think, it is a big, long, oblong shape piece of land, and there is a line going directly through their land. Have they committed to have that through their land?

Mr. MEYER. I will have to get back to you on that and provide further information.

Mr. TOM UDALL. OK, thank you.

Mr. MEYER. I don't have that information now.

Mr. TOM UDALL. If you could supplement where—the most difficult thing I think for me sitting up here is being interested in tribes and being interested in sensitive Federal lands, wilderness areas, protected areas, is knowing where these corridors are

planned, and with the maps that we have right here it is very difficult and hard to do that.

Mr. Chairman, I am also disappointed that Mr. Desmond didn't show up. I hope at some point in the future we could have him come here because—and I hate to beat a dead horse here, but over and over again in his testimony and statements, I mean, he is the key point man for Governor Schwarzenegger, and here is a quote.

"The Governor's point man on energy, Joe Desmond, says we are focused on the advanced technologies that are near zero emissions. All of the plants that will be proposed will be high-tech plants that get to the goal of near zero emissions." Those are direct quotes.

And yet when you look at the plants that are out there and the plants that are being planned and that are being permitted right now, and there are 31 of them, none of them are using coal gasification. So I hope that we will get an opportunity. I know he is on the witness list, and should have been here for him to explain where these plants are coming from. I mean, are they just going to pop up out of the blue, these coal gasification plants?

Let me ask Mr. Willis a question. I didn't give him a chance to—is it fair to release carbon dioxide and mercury and other contaminants in states like Oregon and Wyoming when you are generating power, when this pollution would never be allowed in California?

I mean, does that fit with your idea of being a good steward of what we have been given?

Mr. WILLIS. No, sir, it doesn't.

Mr. TOM UDALL. Do you have any further comments on what was said, has been said here earlier? I mean, I think one of the things that you, and it seems to—you and Mr. Avery could agree, I mean, I applaud you, Mr. Avery, for saying, you know, we need to put the plants on the books, and we need to have goals, and we are looking at clean energy, and we need to have a level and a magnitude of research and commitment to this that we haven't seen since the Manhattan Project or the man on the moon, to break through some of these barriers.

We seem to be stumbling along with this dirty coal technology, and yet planning for the big bold things and not doing anything about hooking the two up, but please, either one of you that——

Mr. WILLIS. Well, the last thing I would like to—I would like to submit one more piece of information for the record. Perhaps Mr. Zachary could get it. It is a map of the high elevation connectivity, biological connectivity corridor between the globally significant Klamath-Siskiyou ecoregion, and the Cascades, and biological corridors, I would submit, are more important than energy corridors, and I hope the planners will take that into consideration along with more specific reasons besides that general point.

And this corridor, again, has already suffered quite a bit. I-5 is already a major barrier to many species, and to put a 3,500-foot or wider corridor bisecting this important biological corridor, which has been noted by the numerous documents and people and my testimony, would be a tragedy, and it will be tough to do for a number of reasons.

Mr. RADANOVICH. That information submitted for the record if there is no objection.

Mr. TOM UDALL. Sure, that would be great.

[NOTE: The map submitted for the record by Mr. Willis can be found at the end of his prepared statement.]

Mr. TOM UDALL. I don't know if Mr. Avery had a comment, but I am way over my time, and I appreciate the courtesies, Mr. Chairman.

Mr. RADANOVICH. Did you want Mr. Avery to answer the question?

Mr. TOM UDALL. If he had any comment.

Mr. AVERY. I believe, and I think I have stated earlier that, first off, you are correct that the technology is just in its infancy stage, and you are probably correct that there are 31 plants that are out in the permit process. If I take you back five years ago, there were probably 35 power plants in the permitting process in California that never got built, and I don't expect that—in fact, I do expect that if these power plants are not employing new technologies, that even if they get permits, they will never get built if their intention is to sell to California.

I do believe that as we go through this process and we do the study work and turn this type of project, the Frontier Line into some level of reality, then I believe you will see a much higher degree of interest in actually advancing this technology.

But that doesn't mean that there isn't still a wealth of opportunities for renewables that can be delivered across new corridors. And let me just take you again back to the Sunrise power link project.

There are thousands of megawatts sitting idle just to our eastern borders that pollute a very small fraction of the amount or put out green house gases, a very small fraction of the amount of the power plants that we are depending upon in California today, and if transmission were available today, we could shut down those power plants. And when we hear about the notion that the biological science suggests that transmission or energy corridors and the biology are mutually exclusive, they are not. They are something that can actually work together to make improvements for both.

If we could shut down these old, inefficient, polluting power plants for taking power from much more efficient facilities and renewable resources, everybody benefits.

Now, I recognize that it means we are going to have to expand a corridor that may have a road to include a road and a transmission line, or it may mean that we may have to take a transmission line that is on a 60-foot corridor and expand its physical presence to 70 feet. I recognize that that may have to step cross Federal lands, and I recognize that there are groups that are going to be opposed to that.

But we have to look at the bigger picture, and that is the benefit of our total economy, and I believe that if we can reduce pollutants, and we may have to expand across Federal lands, that ultimately those tradeoffs are worth it for everybody.

Mr. TOM UDALL. Thank you.

Mr. RADANOVICH. Thank you, Mr. Udall.

Ms. Herseth.

Ms. HERSETH. Thank you, Mr. Chairman.

I see the potential for improvements in our energy corridors to present large opportunities in South Dakota. We have one of the best wind resources in the country, but one of the problems that

we have had has been transmission. And so I do agree with Dr. Nelson's comments that if we can get new transmission on line, it helps facilitate the potential for other renewable energy development, and an investment in these technologies, and a willingness of investors to take that risk as well as advancing initiatives in Indian country for renewable energy development.

So my question, Dr. Meyer, is, were some of the tribes that have expressed some interests and that you are working with, are some of them pursuing this in light of the fact that they see a win/win here for some of their renewable energy production, either solar or wind or otherwise?

Mr. MEYER. I am pleased to say that there are tribes that are very interested in the development of wind resources, yes, and they are very cognizant of that and do want to pursue it.

Ms. HERSETH. I appreciate that, and again will be looking forward to seeing an expanded map here to include the Dakotas at some point, but I also just wanted to make the comment that I have heard Governor Schweitzer from Montana on occasion talk about coal gasification as well, and do believe that in light of what is happening in Beulah, North Dakota, that the technology has existed for some time; that there are ways to make these investments to improve the technology to take advantage of a significant resource, natural resource, and huge reserves in an environmentally friendly way, and believe that the transmission is a key component to achieving some of what I think with the questions and responses going back and forth is recognized to be mutually beneficial for the country, for the environment as well as for some of the rural and tribal economies that will be affected.

So I thank the witnesses.

Mr. RADANOVICH. Thank you, Ms. Herseth.

Mr. Kildee.

Mr. KILDEE. Thank you, Mr. Chairman. Just a follow up on my previous statement.

Has there ever been any instance of a violation or intimidation of Indian sovereignty in the construction of these transmission lines, or is there anticipated any violation or intimidation of Indian sovereignty, Mr. Meyer?

Mr. MEYER. We have not uncovered cases or situations in which the tribes have affected or where the tribes have not allowed continued use of transmission lines or gas pipelines that cross their reservation. So that there are cases where negotiations are in process and deadlines are set, and then not met for concluding those negotiations, but nonetheless the energy still continues to flow.

Mr. KILDEE. Well, I would hope that there would be a very careful consideration of that sovereignty. Very often sovereignty has been lost because of coal has been discovered, and for that reason sovereignty became very secondary and the wealth became primary, and I would think that the attitude and philosophy should be that has to be a sovereign-to-sovereign negotiation there, and that sovereignty be held in the highest level, and not violate it.

Mr. TOM UDALL. Would the gentleman yield?

Mr. KILDEE. I would be happy to yield.

Mr. TOM UDALL. Just to follow up on what Mr. Kildee was asking. I am wondering if the new law that was passed and the

President signed with regard to energy. I know it had provisions in it in terms of transmission lines. Were there provisions in there that allowed Federal entities to just overrule tribal sovereignty when it comes to putting in transmission lines? What is your——

Mr. MEYER. I know of no such provisions in the Act.

Mr. TOM UDALL. OK, thank you. I yield back.

Mr. KILDEE. Thank you. Thank you very much.

Mr. RADANOVICH. All right, I thank the gentlemen.

I do have a question for Mr. Avery and Mr. Smith. How much wind power could the Frontier Line and the TransWest Lines leverage?

Mr. AVERY. I think the potential is somewhat undiscovered. If I look at it from our standpoint, I would not anticipate that 100 percent of the line, but I could easily see 20 to 30 percent of the line could be delivering renewable resources such as wind.

Mr. RADANOVICH. Thank you.

Mr. SMITH. Yes, I think with TransWest Express, it is not really the capacity of the line that is at issue so much as what the market will do in terms of development of resources and then the technical ability to integrate the wind in with your system.

Mr. RADANOVICH. Thank you very much. Any other questions of the panel?

Ms. HERSETH. Yes, Mr. Chairman. If I can associate myself with the comments of Mr. Udall and Mr. Kildee. I think as you can see it highlights the importance of the review and the recommendations that DOE and DOI need to come forth, I think, beyond just the individual tribes that you are negotiating with that have expressed an interest, but even further, to protect the sovereignty of tribes and of course identifying these instances where tribal leaders are trying to advance the production of renewable energies because that is a requirement under the Energy Policy Act of last year.

I know that you have described some of the challenges that exist to submitting that report to Congress in early August, but I do think it highlights the importance. Our questions pose highly the importance of it, and so I hope you will take that back to your colleagues at DOE and we will certainly communicate with DOI the importance of moving that process forward to give us the assurance that we are seeking on behalf of the tribes that we may represent.

Mr. MEYER. OK.

Ms. HERSETH. Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Ms. Herseth.

Any other questions of the panel?

Mr. TOM UDALL. Just one question.

Mr. RADANOVICH. Tom. Mr. Udall.

Mr. TOM UDALL. Yes, one more.

Mr. Meyer, your statement expresses confidence that you will be able to complete most of the environmental analyses within the programmatic phase of your corridor process. How will you be able to evaluate thousands of miles of alternative corridor routes in just a few months time?

Mr. MEYER. I did not say that we would complete most of the analysis. I think we can complete a substantial portion of the analysis, and prepare the ground for the more specific analysis that will need to be done a particular proposals come forward.

Mr. TOM UDALL. So we are talking about more time than a couple of months then?

Mr. MEYER. No. No. I am talking about the proposals that would come forth to site-specific projects in these corridors, and at that point project-specific environmental analyses would be needed before those projects would be permitted and approved.

Mr. TOM UDALL. Thank you very much.

Mr. RADANOVICH. Thank you, Mr. Udall.

Any other questions of the panel? If not, we will conclude this hearing.

I do want to make a point that reality is that our consumers need more transmission, and I think the reality is that we can build new transmission and protect the overall environment at the same time. I think the Frontier Line is an example of that. I would encourage all those involved to accomplish those ends, and I want to thank the witnesses for being here, for your valuable testimony, and with that this concludes this hearing.

Thank you.

[Whereupon, at 11:57 a.m., the Subcommittees were adjourned.]