

**THE NOMINATION OF THE HONORABLE RICK
PERRY TO BE SECRETARY OF ENERGY**

HEARING
BEFORE THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
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THE NOMINATION OF THE HONORABLE RICK PERRY TO BE SECRETARY OF ENERGY

THURSDAY, JANUARY 19, 2017

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The Committee met, pursuant to notice, at 9:35 a.m., in Room SD-366, Dirksen Senate Office Building, Hon. Lisa Murkowski, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM ALASKA

The CHAIRMAN. Good morning. The committee will come to order.

I would like to welcome you all to our second Cabinet-level confirmation hearing of this inaugural week.

I would like to start by thanking Senator Cornyn, the senior Senator from Texas, for being here to speak on behalf of our nominee. It is always good to have you before the committee. I would also like to thank our fellow committee member, Senator Manchin from West Virginia, who is prepared to offer introductory remarks for our nominee.

Governor Perry, I would like to extend a warm welcome to you and to your family. Know that I appreciate your desire to serve and your willingness to become our next Secretary of Energy. I enjoyed the meeting that we had together, learning more about your leadership as Governor of the State of Texas, including your accomplishments in the area of energy and environment.

I am going to withhold this morning any reference to Texas size versus Alaska size. We have had that discussion and—

[Laughter.]

Mr. PERRY. You won.

The CHAIRMAN. I won, yes. But in all seriousness, we know that you are seeking to lead the Department of Energy (DOE) at both an interesting time and a critical time. DOE has helped make our nation a global leader in research and development by supporting basic research, by encouraging scientific exploration, and fostering innovation.

At the heart of these efforts are scientific research funded by the Department and the 17 national laboratories that employ the Department's greatest assets, and those assets, of course, are the scientists who dedicate, not just their careers, but in so many cases, they dedicate their lives, to solving some of the toughest challenges that face our nation and really face the world.

I am hopeful that if you are confirmed, Governor Perry, you will take a broad view of the importance of basic scientific research and continue to pursue the significant benefits that will result from it. Done right and in a disciplined manner, a good set of innovation policies will provide us with more energy, reduce the amount of energy that we use and lower the costs that we pay for energy.

In my view, those are the guiding principles for the Department. I would encourage you, as you move forward, to work with the rest of the Administration to increase access to energy, to make energy more affordable and to continue to improve its environmental goals.

Folks here at the committee know that I have a set of principles that are pretty easy. It is accessible, affordable, clean, diverse, and secure. There is no acronym there. It is in alphabetical order so that we remember it all.

I sum it all up in one bumper sticker that just says "Energy is good" because I believe that, and I hope that you believe that as well. If these are your goals, if we share the same outcome here, I think that we can greatly contribute to the prosperity of this country, of our standard of living, and to the health of our planet.

I would also encourage you to ensure that the Department of Energy steps up and becomes an advocate for energy supply within the councils of our Government. It seems that in these past years, we have seen other agencies that have been successful in taking resources off the table, regardless of the long-term consequences for the American people.

One of the biggest challenges facing the Secretary of Energy is the management of a large and very complex organization with thousands of employees and tens of thousands of contractors. I do not subscribe to the view that only a scientist can manage other scientists. Instead, I think what we need is a good manager.

We need a manager to manage all these scientists, one who acknowledges "maybe I don't know everything in that space," but being capable of organizing, setting direction, imposing accountability, making the greatest possible use of taxpayer dollars, and reaching goals.

Governor Perry, as the longest-serving Governor of Texas, you have considerable experience leading a big and a very sophisticated enterprise. I believe that will serve you well as Secretary and look forward to hearing how you would carry that experience over to the Department.

If you are confirmed, you will also find yourself in a position to make the Department run more effectively. Secretary Moniz, I think, has made some very good progress in breaking down some of the silos that have historically frustrated the Department, but I think we all recognize that there is more that can be done. Offices within the Department must do a better job working together to utilize limited resources and reduce unnecessary duplication.

I know that in our conversation you made a commitment to travel to my state. I am sure that as you have visited with other members, you have made similar commitments to them. But I do appreciate your willingness to come to Alaska, to see my home state firsthand. While the Department of the Interior is usually the one that makes the headlines in Alaska, the Department of Energy is

also very important in perhaps three key ways that I can point out to you this morning.

The first is what the Department can do to help reduce extremely high energy costs in the State of Alaska. Our energy costs are the greatest challenge facing our rural areas. Many of our communities are still reliant on diesel as their primary energy source, and in many of the small interior communities—again inaccessible by road, you get a barge twice a year—they may be experiencing fuel prices in the range of \$9–\$10 a gallon for their fuel.

It is not sustainable. It simply does not work. It is a huge burden, and what ultimately can happen is you have families that just say we cannot live here. We cannot stay in a village, in a region that we have been in for 1,000 years because the energy costs are driving us away. So they leave their villages, and they go to town—Anchorage, Fairbanks. But it really is not the right choice. I think our challenge should be to help them find those energy solutions.

This is where I think we in Alaska can offer a great deal of opportunity because we have been innovative, innovative because of necessity, and we have a lot to share, we think, with the rest of the country in terms of demonstrating how we can find energy solutions very locally. We have more microgrids and more to talk about in that microgrid space than anywhere else in the country. So I ask you to use us, use that expertise.

I think the Department of Energy has some great opportunity to partner with communities and organizations, not only in Alaska but around the country, to develop real solutions, particularly with renewable energy, that can help reduce our energy costs.

I have told you I think that Alaska can be that proving ground, and we look at it and say if you have got new technologies that make sense somewhere else, we can pretty much guarantee that they will make sense in Alaska, and then we are the beneficiary because we see the reduced costs. I want to see the Department make a much greater effort to capitalize on that going forward.

The second way the Department can work with Alaska is to help us bring our stranded natural gas to market. Last year, the Department granted a conditional export license to the Alaska gasline project, but we have to continue receiving good, strong support and timely approvals from the Federal Government if the project is going to succeed.

Finally, the Department of Energy can help Alaska commercialize more of its vast resource base. The Office of Fossil Energy has focused almost exclusively on the environmental aspects of fuels in these recent years, but its mission is supposed to be considerably broader than that. A renewed focus on precompetitive research on methane hydrates and other resources could lead to new breakthroughs and boost our nation's energy security long into the future.

I do think it is important to recognize that this committee, which has a reputation of working collaboratively in a good, bipartisan way (Senator Cantwell and I, along with our colleagues) has been able to move the ball forward on some very important energy issues. We have been able to do that in part with the Department of Energy because we have had a good, positive relationship with the current Secretary of Energy, Ernie Moniz.

I think he has done well as Secretary. While I did not always agree with him, it was a working relationship that was solid, and there was good respect. I hope that in that respect, you will follow his lead there, working with us, making yourself available to us, whether to testify here, to just keep in contact, stay in touch, and generally be responsive to our members here. If you can do that, I think you will be on the right track, and we will work together as we seek to maintain America's energy leadership.

Again, I thank you for being here this morning and your willingness to serve, and I now turn to Ranking Member Cantwell.

STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Madam Chair.

Welcome, Governor Perry, and welcome to your family. Congratulations on your nomination.

In case you may have forgotten, you once called for the abolishment of this agency. I suspect that now, having had a chance to learn about the importance of this Department, you have a very different opinion.

The Department, as the Chair just mentioned, plays an essential role in protecting our national security, our economic security, our energy security, and our environmental security. Its wide-ranging mission impacts almost every aspect of our lives. The Department of Energy is a science and technology powerhouse, with an unrivaled network of national laboratories, accelerating innovation and making sure our U.S. manufacturing base stay competitive.

The Department of Energy has helped make the United States a world leader in clean energy and energy efficiency technology development. There are now more people working in installing solar panels in the country than there are working in coal or oil and gas extraction.

The Department of Energy has built and maintained our nuclear deterrent, led the science and technology development that continues to guide our ongoing nonproliferation efforts that manage the nuclear weapons complex—facilities such as Hanford, that helped us win World War II and the Cold War. So it is very important that we talk today about our steadfast determination on clean-up at Hanford, and I will get into that more.

Also as threats to our national security continue to evolve, the Department of Energy's mission has to evolve. The Quadrennial Energy Review, which was done by the Obama Administration's Secretary Moniz, found that cybersecurity and emergency responses are critical. Just as the Defense Advanced Research Projects Agency helped us in the development of the Internet, it is now time for ARPA-E to help us in the wired economy of the future and making sure that it is well protected.

It will be the job of the next Energy Secretary to be a good overseer of these enterprises—not only to maintain the achievements of the past 40 years, but also to maintain U.S. leadership in an increasingly competitive global market for clean energy technologies and to protect the grid from the growing threats of cyber attacks. Leading the national labs is going to be a critical aspect of this leadership, and leading the R&D is paramount.

It is our job today to consider how well you will do that job. Like many of my colleagues, I am deeply concerned by some of the things that Governor Perry has said in the past about climate science. We will get into that in more detail.

I believe it is the consensus of the scientific community that climate change is real, that it is happening now, and it is due to human activity. Yesterday, NASA announced that 2016 was the warmest year on record. In the Arctic, where warming is happening faster than any place on Earth, the melting of sea ice is now at an all-time high. How do we know all of this? We know because the Department of Energy does the research.

We want to make sure that climate science in the Arctic is not just something the Department of Energy, its national laboratories and its university partners are doing. We need people to understand that it is not just some academic pursuit. We need the information for very important decisions. The nature and the pace of these changes have serious impacts for the Department of Defense investments and the kinds of infrastructure we need to stand up in the Arctic.

I know the chair would agree with this. We are an Arctic nation. That means that this part of the world is going to be coveted by many nations. Its shipping lanes, its trade routes, its defense issues are going to be central. So as Senator Murkowski could also tell you, the implication for Arctic communities and their way of life is also impacted. In my state alone, our fisheries industry and the shellfish industry were almost devastated by ocean acidification. The Department of Energy's scientific horsepower is key to understanding these trends. I hope you can understand that there is widespread anxiety about President-elect Trump's intention to dismantle these scientific capabilities or simply just starve them for resources.

We hope that you, Governor Perry, will be someone who understands and believes in the science mission of this agency and will lead it to the best of your abilities.

Mission Innovation, which is the priority of this agency in continuing to move forward with renewable energy, is also critically important. Almost two million Americans work in energy efficiency alone, driving significant savings to consumers by these advancements.

The Quadrennial Energy Review estimates that we need 1.5 million new energy jobs by 2030, most of which will be in grid modernization and clean energy.

What we have seen through the innovation that has happened through Sandia National Laboratories, the National Renewable Energy Laboratory (NREL), Lawrence Berkeley National Laboratory, the University of Washington, and many other individuals is that the cost of utility-scale solar has dropped 64 percent since 2008, which caused solar energy last year to lead all forms of energy in new capacity installation in the United States.

We have seen energy efficiency in buildings give back billions to consumers in savings. More than 115,000 electric vehicles (EVs) were sold in the U.S. in 2015, doubling the amount of 2012, and the DOE's Energy Efficiency and Renewable Energy (EERE), office

helped bring down the cost of EVs through better research on battery technologies.

All of these energy innovations rely on the important investments that are made by the Department of Energy and the national labs that support them.

The choice before us, in my opinion, Governor Perry, is pretty clear: the Trump Administration can either cling to the fossil fuel industry of the past or continue to lead on the innovations that are going to be the leading technologies in the world and put the U.S. in a clear leadership position. I hope you will understand that these missions are so important.

Along with that is also the mission of nuclear waste clean-up, which is close to 20 percent of the agency's budget. The science and technology that underpins our ability to clean up here is critically important, as well as protecting us through nonproliferation efforts.

As I mentioned earlier, the Quadrennial Energy Review could not be clearer on the issue of cybersecurity. In light of recent revelations about Russian hacking, the Secretary of Energy needs to take very seriously the threats to this nation and to our electricity grid.

We are increasingly becoming a wired economy. My constituents spend night and days developing new technologies. They deserve a President and an Energy Secretary who are going to take the threats of Russian hacking seriously and defend us against them.

I hope that we can go into more detail in questions about this. I also want to make sure that you understand that the past Energy Secretary is leaving you with a roadmap for cybersecurity. I hope you will take it and provide the leadership that our nation needs to stop our vulnerabilities against something so important and protect the innovation economy of the future from incessant attacks by foreign entities.

With that, and on behalf of the 15,000 Washington workers that work at Hanford and the Pacific Northwest National Laboratory, I hope that you will take what we have said here today about science, innovation, and investment very seriously. I look forward to asking you questions, and again, congratulations on being nominated for this important agency.

Thank you.

The CHAIRMAN. Thank you, Senator Cantwell.

At this time, we will ask Senator Cornyn to provide his introduction of the nominee. When Senator Cornyn has completed his comments, we will turn to you, Senator Manchin, and then we will proceed to hear from Governor Perry.

Welcome, Senator Cornyn.

STATEMENT OF HON. JOHN CORNYN, U.S. SENATOR FROM TEXAS

Senator CORNYN. Thank you, Chairman Murkowski and Ranking Member Cantwell, colleagues. Thank you for holding this hearing to consider the nomination of my friend, Governor Rick Perry, to be Secretary of the Department of Energy and allowing me the opportunity of introducing him.

I want to just also introduce his wife, Anita, who is here today. He has his extended family, including some of his adopted family, here with him today, and I will let him introduce the rest of them.

Sandy, my wife, and I got to know Rick and Anita when we both ran for statewide office in 1990. It has been a few years now. Rick had already served in the Air Force, and he had served in the State legislature before being elected as Agriculture Commissioner in Texas. I got elected to the Texas Supreme Court that same year. Of course, later, in December of 2000, Rick assumed the office of Governor of the State of Texas, becoming, as Chairman Murkowski noted, the longest-serving Governor in our state.

Serving in public office alongside of someone that long gives you a chance to assess their character and their abilities. I am here to say that I know Governor Perry to be a tremendous leader of the highest caliber and a dedicated public servant who is committed to working on behalf of the people of Texas and now on behalf of the nation.

Rick Perry is not a status quo kind of guy. He is a leader. He is an innovator. Texans are, by nature, practical people, looking for solutions to problems. Rick has led in that spirit, and I believe the results in our state speak for themselves.

We have been blessed by the leadership of Governor Perry. During his tenure, the state thrived, even as much of the rest of the country languished. Texas not only added almost two million jobs during his time in office but was responsible for the lion's share of all job growth across the nation from 2007 to 2014. It is really a remarkable statistic.

While he was Governor, Texas also became the top exporting state in the country, a title we have held for more than 14 years in a row now. The crime rate dropped, and thousands of miles of highway lanes were added to our roadways. In other words, under Governor Perry's watch, Texas flourished, and he helped give Texans everywhere even more to brag about.

But the real measure of a leader is tested in times of hardship and trial. Through massive wildfires in places like Bastrop to major hurricanes along our Gulf Coast, to the tragic explosion in a West Texas fertilizer plant a few years ago, every time, Governor Perry demonstrated that he was able to rise to the occasion, make tough decisions, and meet the challenge placed in front of him.

On top of all of these accomplishments, Rick Perry also has a proven track record of success when it comes to the Texas energy landscape, not an insignificant part of our economy. Many associate Texas with the oil and gas industry, and that would be fair. But during Rick's time in Austin, he championed an all-of-the-above energy strategy, really an all-of-the-above energy strategy. It wasn't just rhetoric. It revolutionized production in our state and led to more efficient energy use, more jobs, and more innovation.

So today, Texas not only leads the nation in oil and gas production but produces more wind energy than any other state in the country, more than all but five countries in all. Under his leadership, solar energy has continued to grow, and Texas is poised to become a national leader in solar power as well.

Thanks to his common sense approach to governing, the shale revolution arrived in Texas in a big way, creating thousands of jobs

and making energy even more affordable for Texas families. So Rick doesn't fall into the either/or trap that so many seem to have fallen into, a zero-sum game when we talk about energy. He found a way to spur innovation and investment in new technologies without stifling existing technologies and while reducing our state's carbon footprint as well. In other words, the guiding principles of Governor Perry's tenure are smart regulation, encouraging innovation, and creating a climate that grows every aspect of energy production, and it has continued to serve our state well.

So I have absolutely no doubt that Rick Perry will put forward an America First energy policy at the Department, and it will help spawn the next great era of American energy. He has the track record. He has the know-how and a real desire to export more American energy to enhance the security of our friends and allies abroad. Put another way, Rick Perry is simply the right man for the job, and it is an honor for me to support his nomination to be the third Texan to head the Department of Energy.

Thank you, Madam Chairman.

The CHAIRMAN. Thank you, Senator Cornyn.
Senator Manchin.

**STATEMENT OF HON. JOE MANCHIN III, U.S. SENATOR FROM
WEST VIRGINIA**

Senator MANCHIN. Chairman Murkowski and Ranking Member Cantwell and all my colleagues, Senator Cornyn, and to Governor Perry and to his lovely wife, Anita; to their daughter, Sydney, and son-in-law, Brett; and extended family. I know your son Griffin was unable to be here today, but I know he is with you in spirit.

I know some of you might think it is maybe interesting why I would be sitting here, and I wanted to explain that as a former Governor, Governors form bonds and friendships unlike any other elected officials I have ever seen. We travel a lot. We work together. We have the same problems. If it is an education problem, if it is a disaster, whatever, we are calling and helping each other all the time. So I am here to support my friend—and that is one thing we do develop is friendships, as Senator Hoeven knows so well and Senator Risch also—the President-elect's nominee for Secretary of Energy, Governor Rick Perry.

He is the longest-serving Governor in the history of Texas, as Senator Cornyn has said, the 12th largest economy in the world, and is uniquely qualified to hold this position. For many years, we have been friends, and I know Rick understands how to work across the aisle in a bipartisan way to get things done. I have seen that firsthand.

I was honored to call him my colleague, and Senator King understands and our colleagues as Governors, you know, they become friends. They become part of your family. In my tenure as Governor of the State of West Virginia, let me explain how Rick and I first met.

It was the year of 2005. It was the weekend of Katrina, and we were at a Southern Governors Conference. We were sitting there, and I had not met Governor Perry before, we meet two or three times a year, really get to know each other. We were sitting there, and Governor Blanco from Louisiana could not be there because

she was told that the hurricane was going to have a devastating impact on her state. So Rick and I that weekend were talking back and forth, and we were watching the weather reports and what was going to happen and discussing the different precautions as Governors you want to take to protect all of your citizens to keep them out of harm's way the best you can.

I will never forget the last day. We were leaving, and Rick had to get back. I had to get back to West Virginia. Rick was going back to Texas, and I said, "Rick, do you think the hurricane is—what have you heard? Is it going to affect you?" He said, "Joe," he said, "I just talked to our people in Texas, and we think we are going to be spared. We are going to be missed by this hurricane." It was a blessing.

Well, lo and behold, within the next week did Rick ever have a wide awakening because then, with the devastation that hit, over a quarter of a million people, I think, moved in immediately to Texas. Texas got overwhelmed at that time, and they did not have the support, and we were waiting for someone to kind of direct us.

Well, as Governors, we took our own initiative. We are all commanders-in-chief of our National Guard, and I said, "Rick, what can we do?" He says, "I need some help here." We sent C-130s. We sent over 1,200 soldiers to help him to move in supplies, to help FEMA move supplies, to help move people out because they had nowhere to go, and we moved them into West Virginia. It was just a collaboration of how government should work and how we all should be working together.

So I watched him under that really tough situation. People were depending on Rick to step to the table, and he did. He took care of them, never missed a beat, and we all reached out to help each other.

Throughout those challenging times, Governor Perry's resourcefulness and managerial skills were on display. Someone says are you ready for these jobs? Well, no one gave us a manual when we became Governor. We did not know everything that it entailed. We had to learn while we were there, and I will tell you one thing, you have to get up to speed quick.

Senator Murkowski, I know you know from your family exactly what we are talking about. You know, so I have no doubt that Rick is going to not only do the job, he is going to excel in the job. That is evident in Rick's achievements in diversifying the Texas energy portfolio, which is remarkable. It is the number one producer of crude oil and natural gas in the nation.

The State of Texas has done the heavy lifting like West Virginia and so many of your states. People do not ask for much. They will go and do the heavy work, and they will continue to provide for this country and make us the super power that we are with the greatest economy in the world.

I believe that Rick has the experience and the tenacity to serve in this Cabinet. Texas is the largest producer of crude oil, natural gas, and electricity in the nation. During his tenure, as Senator Cornyn has noted and knows him from on the campaign trail—and that is when you really learn people well, too—through 2000 and 2013, air quality in Texas significantly improved, with major reduc-

tions in pollutions like ozone, nitrogen oxides, sulfur dioxide despite very strong population growth.

I am going to let him talk to you about the growth they have had in Texas. Governor Perry cultivated wind energy development in the State of Texas, which is now the leader, and also solar coming on so strong.

So when we talk about an all-in energy policy, we use everything we can to have dependable, reliable, and affordable energy and do it as clean as humanly possible. Hopefully, the rest of the world will take the lead. I believe that he possesses an all-of-the-above energy policy that will find the balance between the economy and the environment, which is so important.

I do not need to tell any of you all sitting there and working with you every day, finding that balance is very difficult. Very difficult, but we try. I believe that Rick will be someone who will work with you.

We enjoyed very much Secretary Ernie Moniz. He is a great man, and he worked across the aisle very well. I think you are going to find that reassurance from Rick Perry.

I look forward to Rick serving. I think he is going to do a great job for not only the Department of Energy, but for all of us in America.

With that, I am proud to support my friend, my colleague Rick Perry.

The CHAIRMAN. Thank you, Senator Manchin.

We appreciate the comments of both of you gentlemen. Thank you for providing this introduction for Governor Perry.

At this time, I would ask you, Governor Perry, to please come forward. Before asking for your opening statement, I am going to administer the oath, which is customary in hearings such as this one, and then I am going to ask you the customary three questions.

At this time, if you could raise your hand, the rules of the committee, which apply to all nominees, require that they be sworn in connection with their testimony. Raising your right hand, do you solemnly swear that the testimony you are about to give to the Senate Committee on Energy and Natural Resources shall be the truth, the whole truth, and nothing but the truth?

Mr. PERRY. I do.

The CHAIRMAN. You may go ahead and be seated. Before you begin your statement, I am going to ask you three questions addressed to each nominee before this committee.

The first is will you be available to appear before this committee and other congressional committees to represent departmental positions and respond to issues of concern to the Congress?

Mr. PERRY. I will, Senator.

The CHAIRMAN. Are you aware of any personal holdings, investments, or interests that could constitute a conflict or create an appearance of such conflict should you be confirmed and assume the office to which you will be nominated by the President?

Mr. PERRY. I have none, Senator.

The CHAIRMAN. Are you involved or do you have any assets held in blind trusts?

Mr. PERRY. I do not, Senator.

The CHAIRMAN. Thank you. Governor Perry, you may proceed with your statement. Is your mic not on?

Mr. PERRY. Thank you.

The CHAIRMAN. Thank you. Already the committee is being wonderfully helpful and supportive here. [Laughter.]

**STATEMENT OF HON. RICK PERRY, NOMINATED TO BE THE
SECRETARY OF ENERGY**

Mr. PERRY. I have found nothing but that during my time in each of your offices, so I want to thank you for your hospitality.

Madam Chairwoman Murkowski, I want to say to each of you my great thanks. Ranking Member Cantwell, thank you for your wisdom, your interaction. All the distinguished members of this committee, thank you for allowing me to come in and share with you, to let me listen to your concerns.

It is a real honor for me to be here, to be President-elect Trump's nominee for the Secretary of Energy. As I said, this process has been extremely informative and beneficial for me. The individual discussions that we've had in your offices and in some cases over the phone afterwards have been most important and, I will suggest to you, the most important aspect of this process for me.

I especially want to thank Senator Murkowski and Senator Cantwell again. You both spoke passionately and very frankly about the priorities of this country and for the things that affect energy policy. You may be from different political parties, but as I noted during those meetings, what you have in common—both of you talked passionately about energy development, about the safety, about the reliability of nuclear stockpile, the vital role of our national labs, the critical importance of grid security, unique situations in each of your states. I might add both of them talked very passionately about those issues without the benefit of notes. You know well the challenges and the issues that are going to be facing the Secretary of Energy. If I am confirmed, obviously, I look forward to working with each one of you.

Before I go further, I want to recognize an individual that's already been recognized, but I want to add my very strong love and support to an individual that's been my greatest advocate, a person who has been with every step of the way since a piano recital, Senator Franken, back in the late 1950s. You didn't know I was a pianist. I was going to bring that to your attention, sir. And that's obviously my wife, Anita. We've had quite a journey. I grew up on a dry land cotton farm 16 miles from the closest place that had a post office in a house that had just received electrification, received power from the Rural Electrification Agency, all the way to today as I'm being considered as the Secretary of Energy.

With us today is also one of our pride and joys. That's our daughter and her new husband, a naval officer, Brett Harrison.

I arrive at this appointment with three decades of experience in elected office. I was a State Representative, I was the Agriculture Commissioner, I was the Lieutenant Governor and, for 14 years, the Governor of the State of Texas. During my three and a half terms as Governor, a state that created 2.2 million jobs, we added more people to our population rolls than any other state during that period of time.

If it were a standalone country, it would be the 12th largest economy in the world. We're also the nation's leading energy-producing state, not just in terms of oil and gas, as Senator Cornyn shared with you, but also wind energy.

I have firsthand experience with the shale energy boom that revolutionized American energy with the state-led clean-up efforts to improve our environment as well. As Governor, I also learned the management skills that you gain, as Senator Manchin shared with you—Senator King, you certainly know this, and Senator Hoeven as well—of being a Governor. I have the executive experience necessary for leading an organization as large as the Department of Energy.

From this experience, I learned how important energy is to the American economy and the great responsibility that we have to take care of what we've been given, to protect our citizens. I'm also—or I should say if I'm so fortunate as to be confirmed, this experience will inform my priorities at the Department.

I am committed to keeping Americans safe. Nuclear security is the largest portion of the Department of Energy's portfolio, its budget, if you will. I will be focused on continuing to protect and modernize the nation's nuclear stockpile. As a former Air Force pilot during the days of the Cold War, I understand the deterrent value of our nuclear weapons system and the vital role they play in keeping the peace.

Another aspect of security is ensuring the reliability of our electric grid against cybersecurity attacks. I'm committed to undertaking enhanced security measures where necessary and assisting with recovery efforts, if those are required, so that Americans can depend on a stable source of power. I'll draw upon my years of experience as Governor of a coastal state in organizing emergency response personnel to handle disasters effectively and efficiently.

If confirmed, I will advocate and promote energy in all forms, and that certainly includes our renewables. America has been blessed with vast natural resources and the technology to utilize them.

I'm committed to helping provide stable, reliable, affordable, and secure sources of American energy. An America First energy strategy is important to create jobs and to grow the economy. I'm a major proponent of maintaining American leadership in the area of scientific inquiry. I support the academic and the Government mission of basic research, even when you may not see the results of that for a generation.

Our scientists and our labs are the envy of the world. I look forward to visiting those labs this year and, if confirmed, learning even more about the unique work that they do.

I have a strong record of aggressively courting leading scientific minds to bring innovation and job creation to my home state. Furthermore, I understand and am committed to the vital role of the Department of Energy that it maintains in environmental clean-up, specifically cleaning up nuclear waste that is the legacy of the Cold War.

I have experience of dealing with the difficult challenges of transporting and storing low-level waste in my home State of Texas. I know this is a daunting task. You have 35 states that temporarily

are housing waste from various nuclear programs. I look forward to working with the members of the committee to address the concerns many of you are hearing back home about nuclear waste facilities.

In summary, I'm committed to modernizing our nuclear stockpile, promoting and developing American energy in all forms, advancing the Department's critical science and technology mission, and carefully disposing of nuclear waste.

Madam Chairwoman, if I may in my just limited time I have left, I have a couple of other issues that I'd like to touch upon. I have learned a great deal about the important work being done every day by the outstanding men and women of the Department of Energy. I've spoken several times to Secretary Moniz about the operation. I've spoken to his predecessors.

If confirmed, my desire is to lead this agency in a thoughtful manner, surrounding myself with the expertise on the core functions of the Department. My past statements made over five years ago about abolishing the Department of Energy do not reflect my current thinking. In fact, after being briefed on so many of the vital functions of the Department of Energy, I regret recommending its elimination.

If confirmed, I will enter this role excited and passionate about advocating and advancing the core missions of the DOE, drawing greater attention to the vital role played by the agency and the hard-working men and women who dedicate themselves in pursuit of these missions.

Second, let me speak to the issue of climate change. I believe the climate is changing. I believe some of it is naturally occurring, but some of it is caused by manmade activity. The question is how we address it in a thoughtful way that doesn't compromise economic growth, it affects the affordability of energy, or American jobs.

In Texas, we've got a record of taking action to address environmental challenges, including climate change, and despite this fast-growing population and, I might add, one of the largest petrochemical refining industries in the world, we saw our climate and our air improve during that period of time.

We reduced carbon output by 17 percent, sulfur dioxide by 56 percent, nitrogen oxide by 66 percent. We decommissioned 137 of these older, dirty burning plants, Senator. I mean, we did it by using incentives to move to new technology and clean technology, such as clean coal and carbon capture, and underground storage.

In Houston, there is a billion-dollar Petra Nova plant that's going to be opening soon using carbon capture sequestration. We're also using that carbon that's then injected into wells for secondary and tertiary recovery operations. I signed a law into place to retrofit some 15,000 engines under the Texas Emissions Reduction Plan, and we provided incentives for energy efficiencies.

Our willingness to develop natural gas and tap shale formations has helped not only Texas reduce its carbon footprint, but other states and Mexico as well. But we truly advocated an all of the above strategy, reducing carbon emissions not just through development of cleaner fossil fuels, but through the development of renewable resources as well.

During my time as Governor, Texas took the national lead in wind energy development, now producing more wind, as Senator Cornyn reminded you of, than seven countries—excuse me, five countries.

When it comes to climate change, I'm committed to making decisions based on sound science that also take into account the economic impact. We need an energy policy for the 21st century that is focused on promoting American energy in all forms. I am committed to working with this committee and the incoming Administration to do just that.

Senators, this is a historic time for America and for the energy sector, and I would be honored to be a part of that.

Thank you.

[The prepared statement of Mr. Perry follows:]

Complete Opening Statement of Rick Perry, Nominee for U.S. Secretary of Energy

U.S. Senate Committee on Energy and Natural Resources, January 19, 2017

Chairman Murkowski, Ranking Member Cantwell, and distinguished members of this committee, it is an honor to appear before you as President elect Trump's nominee for the Secretary of Energy.

This confirmation process has been extremely informative and beneficial for me, and the individual discussions I had with many of the members of this committee were the most important aspect of that process.

I especially want to thank Senator Murkowski and Senator Cantwell for speaking passionately and frankly about their priorities for the country as it relates to energy policy. You may be of different parties, but I noted during those meetings what you have in common.

Both of you talked passionately about energy development, the safety and reliability of our nuclear stockpile, the vital role of our national labs, the critical importance of grid security, and the unique situations in your states. And both of you talked about these complex issues without the benefit of notes. You know well the challenges and issues facing the Secretary of Energy. If I am confirmed, I look forward to working with you.

Before I go further, I want to recognize my strongest advocate and supporter who has been there every step of the way since we met at a piano recital in 1958 – my wife Anita. It has been quite the journey for us, from a dryland cotton farm with a house that had just received power from the Rural Electrification Agency, to appointment to serve as our nation's Secretary of Energy. With us today is our pride and joy, our daughter Sydney, and her husband Brett.

I arrive at this appointment with three decades of experience in elected service – as a state representative, a state commissioner of agriculture, lieutenant governor, and governor of Texas for 14 years.

During my three and a half terms as governor, I led a state that created 2.2 million jobs, that added more people than any other state, and would stand alone as the world's 12th largest economy.

We were also the nation's leading energy producing state – not just in terms of oil and gas, but wind energy too. I have firsthand experience with the shale energy boom that revolutionized American energy and with state-led cleanup efforts to improve our environment. As Governor, I also learned the management skills for running a state, and have the executive experience necessary for leading an organization as large as the Department of Energy.

From this experience, I learned how important energy is to the American economy, and the great responsibility we have to take care of what we've been given and to protect our citizens.

If I am so fortunate as to be confirmed, this experience will inform my priorities at the Department.

I am committed to keeping Americans safe. Nuclear security is the largest portion of the Department of Energy's budget. I will be focused on continuing to protect and modernize the nation's nuclear stockpile. As a former Air Force pilot during the days of the Cold War, I understand the deterrent value of our nuclear weapons systems, and the vital role they play in keeping the peace.

Another aspect of security is ensuring the reliability of our electric grid and protecting against cyber security attacks. I am committed to undertaking enhanced security measures where necessary and assisting with recovery efforts, so that Americans can depend on stable sources of power. I will draw upon my years of experience as governor of a coastal state in organizing emergency response personnel to handle disasters effectively and efficiently.

If confirmed, I will advocate and promote American energy in all forms, and that includes renewables. America has been blessed with vast natural resources and the technology to utilize them. I am committed to helping provide stable, reliable, affordable, and secure sources of American energy. An American first energy strategy is important to create jobs and grow the economy.

I am a major proponent of maintaining American leadership in the area of scientific inquiry. I support the academic and government mission of basic research, even when it will not yield benefits for a generation. Our scientists and labs are the envy of the world. I look forward to visiting our national labs this year, if confirmed, and learning more about the unique work they are doing. I have a long record of aggressively courting leading scientific minds to bring innovation and job creation to my home state.

Furthermore, I understand, and am committed to, the vital role the Department of Energy maintains in environmental cleanup, and specifically cleaning up nuclear waste, a legacy of the Cold War. I have experience in dealing with the difficult challenges of transporting and storing low-level waste in my home state of Texas. I know this is a daunting task at the federal level, with 35 states temporarily housing waste from various nuclear programs. I look forward to working with the members of this committee to address the concerns many of you are hearing back home about nuclear waste facilities.

In summary, I am committed to modernizing our nuclear stockpile, promoting and developing American energy in all forms, advancing the department's critical science and technology mission, and carefully disposing of nuclear waste.

In my limited time, let me address a couple more issues.

I have learned a great deal about the important work being done every day by the outstanding men and women of the DOE. I have spoken several times to Secretary Moniz and his predecessors. If confirmed, my desire is to lead this agency in a thoughtful manner, surrounding myself with expertise on the core functions of the department.

My past statements made over five years ago about abolishing the Department of Energy do not reflect my current thinking.

In fact, after being briefed on so many of the vital functions of the Department of Energy, I regret recommending its elimination.

If confirmed, I will enter this role excited and passionate about advancing the core missions of the DOE, and drawing greater attention to the vital role played by the agency and the hard working men and women who dedicate themselves in pursuit of these missions.

Second, let me speak to the issue of climate change.

I believe the climate is changing. I believe some of it is naturally occurring, but some of it is also caused by manmade activity. The question is how do we address it in a thoughtful way that doesn't compromise economic growth, the affordability of energy, or American jobs.

In Texas, we have a record of taking action to address environmental challenges, including climate change. Despite a fast-growing population and one of the largest petro-chemical refining industries in the world, we saw our climate and air quality improve.

Our power plants reduced their carbon output by 17 percent, sulfur dioxide by 56 percent and nitrous oxide by 66 percent. We decommissioned 137 older, dirtier power plants while providing incentives for clean technology, such as clean coal and carbon capture and underground storage. In Houston, the billion dollar Petra Nova plant will be opening soon using carbon capture sequestration. We are also using carbon injected into wells for enhanced oil field recovery.

I signed a law to retrofit more than 15,000 engines under the Texas Emissions Reduction Plan, and we have provided incentives for energy efficiency. Our willingness to develop natural gas, and tap shale formations has helped not only Texas reduce its carbon footprint, but other states and Mexico as well.

But we truly advocated an all of the above strategy, reducing carbon emissions not just through development of cleaner fossil fuels, but through the development of renewable sources too. During my time as governor, Texas took the national lead in wind energy development, and now produces more wind power than all but five countries.

When it comes to climate change, I am committed to making decisions based on sound science and that also take into account the economic impact.

We need an energy policy for the 21st century that is focused on promoting American energy in all forms. I am committed to working with this committee and the incoming Administration to do so. This is a historic time for America and for the energy sector. I would be honored to be a part of it.

Thank you.

The CHAIRMAN. Thank you, Governor Perry.

I appreciate that you addressed two matters of concern based on statements that you had made previously, and I am sure that there will be further questions directed to that.

I do think it is also very important to recognize the work that has gone forward within the State of Texas as you have worked to not only embrace a growing population, provide for jobs and economic opportunity, but at the same time working to address the issue of emissions and how you can bring on additional energy sources, both the traditional and our renewables. I think it is a good story and a story worth repeating.

I want to focus my first round of questions on some Alaska-specific issues and appreciate your attention to them. Senator Cantwell mentioned that I am oft heard stating that America is an Arctic nation. We are an Arctic nation because of where Alaska sits, and we are proud that we are an Arctic nation.

We have been struggling a little bit because there are some who, I think, view the Arctic as something in isolation, something that is frozen in time, almost a snow globe that should sit on a shelf, and we just should not touch it. But as Senator King knows, as the Co-Chairman of the Arctic Caucus with me, it is a very, very dynamic part of the world and a very dynamic part of our country.

Understanding what is happening in the Arctic is imperative. Knowing the science, understanding the science is imperative, and we see much of this come out of the Department of Energy. We also recognize that there are incredible resources in the Arctic certainly that could enhance this country's energy production if we are able to access them.

So the commitment that I am seeking from you today is one where you would agree to work with me as well as the people of Alaska, and really the country as an Arctic nation, to bring industry, to bring science, to bring our local communities together to ensure that the U.S. can continue to be a leader in the Arctic as it relates to our energy production, as it relates to our science, as it relates to understanding all that is in front of us as an Arctic nation.

Mr. PERRY. Senator, you have my commitment, as do the members of the committee, to focus on the development of various regions. Obviously, you and I had a very lengthy conversation about the challenges that Alaska and the Native Alaskans face from the standpoint of both the economic impact, the environmental impact. It is a unique area of our country.

The times I have visited there and the times that I will visit in the future will help develop even better an understanding of not only the challenges but the opportunities. I look at this position, if I am so fortunate as to be confirmed as the Secretary of Energy, to not only use the agency and the vast, the brilliance of our national labs.

One of the things since 2012 in particular when I started spending time understanding our national labs, Texas A&M University, which is in my home state, was brought into a competition to operate Sandia Labs. At that particular point in time, I steeped myself in really finding out about these laboratories and the men and women that are in those laboratories, the extraordinary individ-

uals, the technology side and the science side of the Department of Energy.

There are a fascinatingly large number of opportunities that we have on the economic side to make people's quality of life, in your home state, for instance, better by bringing technologies that we may have an idea about today and some that we haven't even dreamed up yet to the table, to commercialization to affect your state and this nation as a whole.

So my record as Governor of Texas has been one to not only think outside of the box, do some things that people might not necessarily have associated with a Republican Governor, but to do it in a way that both sides of the aisle and people who really don't much give a tinker's dam about either political party but want to see results, and that's what I will commit to you, to find those results that will have a positive impact on your citizens of Alaska and of this country.

The CHAIRMAN. I appreciate that commitment, and I would commend to you that we can be that living laboratory. As wonderful as our national labs are, we have some extraordinary individuals with a Ph.D. in Arctic living, individuals that have lived there. Their families have been there for millennia. Relying on the indigenous peoples as well as working with our brilliant scientists in the labs and around the country is very important, but I look forward to spending more time with you speaking about these issues that are so pertinent to the development and the sustainability of an Arctic environment.

Senator Cantwell.

Senator CANTWELL. Thank you, Madam Chair.

Governor Perry, I liked several things that you had to say. There was one thing I definitely want to bring up that is very concerning. You said, as it related to an energy strategy, that we cannot "compromise economic growth."

Well, I guarantee you today we are compromising economic growth because of our overdependence on fossil fuels. It is having an impact on the natural resources economy in my state. It is having an effect on shellfish and the ability to seed. It is having an effect on the two most devastating fire seasons our state has had in the history of our state, burning up more than \$2 billion worth of timber in just one Indian reservation.

We have requested, my colleague Senator Collins and I, a GAO report that I expect to be out this year that will tell you exactly how much this is costing the U.S. Government, and I do not think the number will only be in the billions. It could be higher than that.

So my question is, as you look at this agency, one of the things that I predicated my comments on is the level of science investment that needs to be made to continue this transition. The transition team sent around a document to the Department of Energy trying to identify DOE responsibilities related to climate change—staff attending conventions on climate change, things of that nature.

Juxtaposed to the fact that we are getting hacked by the Russians and the Republicans in the House could not bother to pick up a cybersecurity bill and pass it, I am trying to understand what

you, as Energy Secretary, will prioritize. I want to know your commitment to protecting these individuals and the scientific budget that goes along with them? And what is your willingness to invest in efforts to defend us—basically repudiating the comments that bring the hacking on—and instead make the commitment to pick up the mantle and defend our nation against Russian attacks?

Mr. PERRY. Senator, that questionnaire that you reference went out before I was ever selected as the nominee to sit before this committee. I didn't approve it. I don't approve of it. I don't need that information. I don't want that information. That is not how I manage. I have a history of working with people to find answers to challenges that face us.

My commitment to you and the members of this committee is to obviously not only reach across political aisles, but also to work with the men and women, who I have an extraordinary amount of respect for, at the Department of Energy to find the solutions to these many challenges that we have, whether they are on the environment, whether they are economically focused, or otherwise.

Senator CANTWELL. Do you plan to protect the science budget related to information on climate?

Mr. PERRY. Your question again, Senator?

Senator CANTWELL. Do you plan to protect the science research at DOE related to climate?

Mr. PERRY. I'm going to protect all of the science whether it's related to the climate or to the other aspects of what we're going to be doing. You asked about cyber, and I will suggest to you DOE has a massive role to play in that. And it's an area that I also have a history with, Senator, of working with the private sector, working with, in my case, State government entities. But the DOE will allow me to go to a new level, if you will, of engagement to find the ways to protect.

And I'll be honest with you, Senator, I don't care who it is, what players, whether it's a formal state or whether it is a group that is loosely associated, that if they are trying to penetrate into Americans' lives, whether it's private citizens or whether it's at the highest levels of our Government, you will see me engaged in activities at the Department of Energy working across agencies, for that matter, working with the DoD at DARPA and our ARPA-E, with ARPA-I, all of those different agencies.

I feel very comfortable that we have in our scientific laboratories, in our private sector operations, in the fertile minds of the men and women at the Department of Energy and the scientific side in particular, the technology and the ability to stop the cyber snooping or, for that matter, the intentions to do harm to Americans by penetrating into our electric grids, for instance.

Senator CANTWELL. Yes, my time has expired. But just to clarify, you will protect the scientists and the science budget related to climate?

Mr. PERRY. Senator, I am going to protect the men and women of the scientific community from anyone that would attack them, no matter what their reason may be, at the Department of Energy.

Senator CANTWELL. Thank you.

The CHAIRMAN. Senator Hoeven, and you will be followed by Senator Heinrich.

Senator HOEVEN. Thank you, Madam Chairman. Governor Perry, it is great to see you. Thanks for your willingness to serve and indeed to your whole family. It is great to see you. Of course, you are part of that service as well, so thanks so much, and welcome.

I appreciate in your opening statement you talked about all the different types of energy produced in Texas because we need an all-of-the-above energy policy for our country. We need one that is focused on empowering states rather than a Federal one-size-fits-all, and I know that you understand that.

I also appreciate the fact that you brought up that not only are you a leader in Texas in producing fossil fuels, like oil, and gas, and coal, but that you are also a leader in renewable energy. In my state, actually we produce a million barrels of oil a day. We are second only to Texas in oil production. But we also produce wind, and biofuels, and other renewables, and you talked about that. I want to commend you on that.

I want to bring up something we talked about when you came in to see me, and that is that technology really is the way forward as we develop all these sources of energy, not only to produce more energy more cost effectively and more dependably, but also with better environmental stewardship. And you talked about PetroNovo, a project you are working on, to capture and sequester CO₂. We have a project, the Great Plains Synfuels Plant, where we take lignite coal, the same coal you work with in Texas. We produce synthetic natural gas with that coal. We capture the CO₂, and we put it in your fields for secondary oil recovery.

We want to do more of that, and I know you understand that, and that is why I have asked you to come to North Dakota to see our Energy Environmental Research Center to see the Bakken. We talked about the shale play, the new technology there. But we have projects to capture CO₂, clean coal technology, on both the front end, called alum cycle—PetroNovo is an example of that—and Project Tundra to retrofit plants as well.

We need you to come out there and help us continue to develop and commercialize that technology, and I am asking you for your commitment to do that because it is something that does not just benefit our states. It benefits our country. Beyond that, as other countries develop this technology, it really is a global type of solution. So talk about that for a minute and your commitment to help make that happen.

Mr. PERRY. Senator, thank you. You do have my commitment to not only continue to work on those technologies to be commercialized, but I will come to your home state at the first possible moment. I think I am going to be spending a lot of time traveling to your states over the course of the next—

Senator HOEVEN. Well, how about West Virginia? Any chance you will be going to West Virginia? Just wondering.

Mr. PERRY. I think West Virginia thought I was an honorary citizen over there for a while over the last few years. I have been in Morgantown lots of times.

But back to your salient point, Senator. I am a big believer that one of the reasons we have a responsibility to fund our basic research, and a lot of times we do not know what the outcome of that is going to be, we hope we know how it is going to turn out. But,

Senator Risch, it may be a generation down the road on basic research.

But with our applied research, we have a lot better idea about how it reaches fruition, how it can be commercialized. I saw that as the Governor of Texas. We helped create a fund, and, again, I do not get confused about the difference between Federal Government and State Government. You and I are both strong supporters of federalism, but my life's experiences are going to affect the way that I operate as the Secretary of Energy if I am confirmed.

One of those happens to be about investing in the technology that can be commercialized to improve people's quality of life. One of the things that Senator Sanders and I talked about in his office was that, you know, someday I hope that he and I and then a host of other individuals can stand up together with technology that came out of the Department of Energy that we are able to sell to the Chinese to start making the environment in China better. I mean, that is the potential that is there.

My home state and your home state were virtually changed in a life-changing way with hydraulic fracturing, and that technology had its genesis at the Department of Energy. So the concept of using that agency, whether it is on cybersecurity, whether it is on new ways to use the natural resources that we have, and the management of that.

I mean, one of the things that I bring to you is my 14 years of managing that 12th largest economy in the world from the standpoint of efficiently and effectively putting programs into place and seeing as a result of that action. My commitment, Senator, is that on a daily basis I will have men and women who I trust, who have the expertise and have the authority to be able to implement these programs that can affect the citizens, not just of your state, but hopefully the citizens of this world.

Senator HOEVEN. Thank you, Governor. I think that is a good description of the opportunity that we have, and I look forward to working with you.

The CHAIRMAN. Senator Heinrich.

Senator HEINRICH. Governor, welcome. As I see it, one of the most critical jobs at DOE is the Administrator of the National Nuclear Safety Administration (NNSA). I have been deeply concerned about press reports which indicate that this key leadership post, literally that the steward of our stockpile might be vacant during the presidential transition. Has the question of interim leadership at NNSA been resolved?

Mr. PERRY. Senator, thank you. I, like you, have a concern about an orderly transition. The nuclear stockpile in our country is a bit different than almost anything else that is out there, so having men and women in place and a structure in place to give confidence and a surety, predictability to the people of this country and to the men and women of this committee is very important.

That position obviously is one that has presidential nomination oversight. I have sat down with the general, General Klotz, and had a good conversation with him, and have sent the message that it would certainly be my desire to have that continuity. It is in the President-elect's office now, and hopefully we will see that type of continuity in those very important places.

Senator HEINRICH. I want to thank you for your efforts on that. I think it would serve the new Administration well. We have about 25 hours and 20 minutes to figure this thing out. NNSA, unlike other agencies because of the way the law was written by my predecessor, Senator Pete Domenici, you have to appoint those positions from people who have served 90 of the 365 days. So, the pool is limited. I think we all want to see DOE succeed. We all want to see NNSA succeed, too.

Mr. PERRY. Yes, sir.

Senator HEINRICH. Thank you for your efforts on that. 2016, the warmest year our planet has experienced in human history. It is the third year in a row to break that dubious record. You stated in your testimony that you quote, "believe the climate is changing." This should not be about belief. In my view, it should be about data. It should be about evidence. It should be about peer-reviewed scientific results.

Stepping back from just climate, I just want to ask you broadly will you commit to using science as your guide when making policy at DOE?

Mr. PERRY. Senator, my record as the Governor of your neighboring state clearly shows that that is the case, and I will give you a couple of examples. Relying upon data when people's lives are in jeopardy was one of the things that I became very well known for. I want to speak about hurricanes and the effect that they can have upon—

At 5:00 one morning I received a phone call that a particular storm's track was going to go directly up the Houston ship channel as a Category Five storm.

Senator HEINRICH. I remember.

Mr. PERRY. And the devastation was massive. We are talking about over a million people dead. Not a million people impacted. A million people dead. Those are sobering moments in an individual's life. At that particular point in time, we started a massive evacuation of Harris County in the Houston area. That data happened to be, and fortunately, wrong for that particular storm. But the point is I made decisions based on the most sound science that I could find.

Senator HEINRICH. I want to thank you, and I know that the Chair is going to cut me off if I do not use my time wisely here. But I want to say on behalf of the nearly 25,000 New Mexicans who work at Sandia, Los Alamos, who work at WIPP, at NNSA, and DOE, I want to thank you for your statement as well, and regret for calling for the elimination of DOE. I am going to make it here for the second round.

Mr. PERRY. Yes, sir.

Senator HEINRICH. And we will get to some of those other issues—

Mr. PERRY. Yes, sir.

Senator HEINRICH [continuing]. That I am looking forward to hearing from you.

The CHAIRMAN. Thank you, Senator Heinrich.

Senator Barrasso.

Senator BARRASSO. Thank you, Madam Chairman. Governor Perry, congratulations again. Thanks so much for coming to visit and listening to my concerns about the Department.

I would like to ask you about the Department's so-called barter or transfers that we talked about of excess uranium, which is certainly a component within the Department of Energy. These are the transactions in which the Department trades some of its excess uranium for services that then the Department gets for contractors. We have seen a lot of this under the Obama Administration.

The Department uses this uranium because it refused to ask Congress for the appropriations to pay for the contractors. But in the process, the Department has in the past violated a number of Federal laws. It has also flooded the market with tens of millions of pounds of uranium. As a result the people that are out there producing the uranium in Wyoming, in Texas, and in other states have ended up laying off workers, canceling projects. If confirmed, will you consider suspending the Department's so-called barter of excess uranium until you can at least review the policy?

Mr. PERRY. Senator, I will commit to you that we will follow the law. As you clearly demonstrated to me in your office, at this particular point in time there is some real question of whether the law is being followed. I will spend the time becoming very familiar not only with the law, but the impact that is happening.

You made reference to one of the reasons, from your perspective, that it is happening is because of the budgetary process. And, again, during my 30 years of public service, both as a young State Representative on the Appropriations Committee and then obviously as the Governor of Texas who had to put forward a budget every two years, I understand the budgetary process rather well, and the negotiations that go on, and the prioritization that goes on.

So hopefully you will see that type of activity from the Department of Energy from the standpoint of very appropriately engaged budgetary processes where you do not have to see programs that are important to you and the members of this agency being affected because of bad management or because of budgetary negotiations that maybe were not the smoothest that we would hope for.

Senator BARRASSO. Well, and I would appreciate if as part of that commitment you would meet with America's uranium producers and essentially come up with a long-term management plan of excess uranium prior to authorizing any additional barter.

Mr. PERRY. Senator, we will work very closely with you and the members of the committee to do just that.

Senator BARRASSO. Thank you. Thank you very much. I want to turn to liquefied natural gas, LNG. We talked about that. Certainly a lot of it from Wyoming, a lot with Texas. Since 2010, the Department's permitting process for LNG exports has been, I would say, unpredictable. Last Congress some of us here on this committee in a bipartisan way, including Senator Heinrich who was just asking questions, he and I and others introduced legislation to expedite the Department's permitting process. This committee, the entire Senate, passed our legislation, with overwhelming bipartisan support. The House passed a nearly identical piece of legislation with, again, bipartisan support.

So, if confirmed, will you commit to acting on the pending LNG export applications, because they are all piled up there, and do it in a timely manner?

Mr. PERRY. Senator, I will follow the laws. I will follow the clear instruction that I see as Congress goes forward, obviously working with the Administration. My understanding from having conversations with President-elect Trump is that he truly is an all-of-the-above supporter of American energy and to support, develop, and promote that energy resource, liquefied natural gas being one of those.

Senator BARRASSO. Well, we are going to reintroduce the legislation, and I would hope that you would work with me and with others in a bipartisan way, so not just to ensure that you, but your successors also, those that come after you, act on LNG export applications in a timely matter, because we have such an abundance of energy, as we have talked in this country.

Putin uses energy as a weapon, a geopolitical weapon. We are an energy force in this country, and I believe that we should be acting like the international force that we are with energy. So if I could ask your commitment to help with legislation so that your successors would also follow the law.

Mr. PERRY. I will be available to work with you on any given day, sir.

Senator BARRASSO. Thank you. Congratulations again. Thank you, Madam Chairman.

The CHAIRMAN. Thank you, Senator Barrasso.

Senator Cortez Masto.

Senator CORTEZ MASTO. Thank you. Governor Perry, congratulations on your nomination.

Mr. PERRY. Thank you, Senator.

Senator CORTEZ MASTO. Welcome, to you and your family, to the committee, and thank you for taking the time to sit with me and talk with me. I suspect you know what the first question is right out of the gate.

So, this year, Senator Heller and I introduced the Nuclear Waste Informed Consent Act, and that requires the Secretary of Energy to receive consent from any state considered for a high-level nuclear waste repository before proceeding with development. In 2011 at the Presidential Debate in Las Vegas, you came out in favor of consent-based siting in regards to Yucca Mountain, arguing that if Nevadans did not want it—and I will tell you right now 58 percent do not want it—then they should not have it, and that people of Nevada ought to have their final say. Do you still support consent-based siting for Yucca Mountain?

Mr. PERRY. Senator, as you know, in 2011 I was a sitting governor, and I made a statement about federalism. I still believe in it strongly. I think it is important for the Secretary of Energy, and my role if I am so fortunate to be confirmed, to have that good working relationship with as many governors as I can and the citizens of those states. I happen to also be a great believer of following the statutes and laws. So, if you pass such, not only will I salute it, I will happily salute it.

Senator CORTEZ MASTO. Well, let me ask you this because I know you have a relationship with our governor who just this week came

out in his State of the State emphatically stating that any attempt to resurrect the ill-conceived Yucca Mountain Project will be met with relentless opposition and maximum resources. Also, saying that, "Continuing down a path that seeks to force this unsafe and unwanted project on Nevada is a waste of time and money, and only gets the country further away from solving its nuclear waste problem." In fact, on May 8th, 2014 on Meet the Press, you criticized a one-size-fits-all policy out of Washington, D.C. and that is what we have here.

Can you commit that you will continue to work with the Governor, with the people of the State of Nevada, with everyone who has concerns about the safety and health of siting a high-level nuclear waste at Yucca Mountain, and particularly those in southern Nevada who will be harmed by it, who have concerns about it, including those who live in Summerlin?

Mr. PERRY. Senator, I am very aware that this is an issue that this country has been flummoxed by for 30 years, and we have spent billions of dollars on this issue. After I was asked to serve as the Secretary of Energy, I thought it would probably be wise to pick up the phone or meet face-to-face with the two senators from Nevada and the governor, as you know that I am personal friends with, and to make sure that you all were still pretty much on the same page of the hymn book. I know it does not surprise you at all, you are.

I respect that position. I understand where you all are coming from. I am going to work very closely with you and the members of this committee to find the answers to these challenges that we have. And hopefully this is the beginning of seeing real movement, real management of an issue that I think no longer can sit and be used as a political football, one that must be addressed. I think we can find a solution both in the interim and the long-term of our nuclear waste.

Senator CORTEZ MASTO. Well, Governor, and I appreciate your comments. I am going to hold you to your word because here today you said you rely on data when people's lives are at stake, and that you make decisions based on sound science. I am hoping in this instance you are going to do the same thing.

I know my time is running out here, but I look forward to another round to ask additional questions. But thank you for your comments.

Mr. PERRY. Thank you.

The CHAIRMAN. Thank you. Senator Cassidy.

Senator CASSIDY. Hey, Governor. How are you?

Mr. PERRY. Fine, Doctor.

Senator CASSIDY. Listen, this is something that pertains to both our states, and there is a confluence. We have the Obama Administration and Breitbart News on the same page, so I want to ask your opinion on this.

There is something in Louisiana called the Lake Charles Methanol Plant, and the Administration just approved some loan guarantees, about half the project. There is still \$1.8 billion, I think, in private capital. What this does is it takes petcoke, and it takes from the petcoke everything, including carbon dioxide. As opposed to releasing the carbon dioxide into the atmosphere, it catches it

and sends it to East Texas for enhanced oil recovery—we know how it works technology, but bringing it to scale.

Now, your Administration will be taking over, but, again, this is something that both the right and the left have seemed to have embraced. Knowing that you may not know the particulars, but just in concept the idea that there would be a loan guarantee that would both create American jobs but also capture carbon dioxide to enhance oil recovery.

Mr. PERRY. Senator, thank you for giving me the opportunity to share with you that I do not know the deep particulars of this. On the surface, it appears to make sense. Your observation that it is supported by both sides of the aisle would seem to make that a relatively easy decision to continue to go forward with.

With that said, I have got that that history of investing, working with the members of the legislature in the case of my time as the Texas Governor, the Speaker, the Lieutenant Governor, a panel of experts that referred these projects to us for approval or not. That history, I hope, will give you comfort that I am a big believer that we have a role to play both in basic research obviously, but also in that applied research, to bring new technologies, new commercialization, new economic development opportunities to this country.

You have my commitment to take a look at that project and get to know it firsthand, but my instinct is that that is the type of programs that the Department of Energy should be engaged with that have really concrete, successful end results.

Senator CASSIDY. Let me ask you this because, I am sorry, I was in another hearing. I understand you have been speaking about Texas' record of both expanding jobs as well as decreasing emissions. One thing my office has been looking at is this direct relationship between worldwide manufacturing moving to China and worldwide growth emissions. As one example, since 2004 to 2013, China's share of global manufacturing has risen from one-twelfth to one-fourth and has gone from being the 19th emitter of greenhouse gases to number one.

I have told folks if President Trump is successful at returning manufacturing to the United States where we will have environmental standards perhaps capturing greenhouse gases, certainly SO_x and NO_x, which the Chinese do not seem to bother with, as well as using clean natural gas, nuclear, and renewables as opposed to their electricity feedstock being coal, we will have more of an impact upon global greenhouse gas emissions than any other arrangement.

Knowing that you commented on that previously, but I am sorry I was not here, I would just like your thoughts on that.

Mr. PERRY. Yes, sir. Senator, you know I am a bit of a competitor. Governor Jerry Brown used to not be happy with me showing up in California to recruit businesses from California to Texas, and maybe I might have showed up in one of your states as well. [Laughter.]

But competition is a good thing. I think the competition that can occur with the United States putting tax and regulatory policies into place to bring manufacturing back onshore is a good thing.

I also think it will have the added benefit, Senator, of forcing China to make some changes in how they do their business. As I said earlier about taking a number of the senators here to sell technology to China. I mean, all of that makes ultimate good sense to me that not only do we retrieve that back into the United States, because we know we can. This is not theory. This is not talk.

I have seen the 12th largest economy in the world lower carbon dioxide emissions by 17 percent, SO_x by 66 percent, and NO_x by 58 percent. That is real reductions that make a difference in the environment of the world. If we could see that type of technology and that type of effort, that type of competitive pressure, if you will, in places like China, then we have served the citizens of this world well.

Senator CASSIDY. Thank you. I yield back.

The CHAIRMAN. Thank you. Senator Stabenow.

Senator STABENOW. Thank you, Madam Chair. Welcome and congratulations, Governor Perry.

Mr. PERRY. Thank you, Senator.

Senator STABENOW. And welcome to your family as well. I had a chance to talk with you in my office about basic research and applied research on a number of different fronts. I appreciated what you said then as well as what you are saying now in terms of supporting both efforts to bring these new technologies to commercialization, as well as doing basic research. I should tell you in talking to the presidents at universities in Michigan, they have indicated that your universities in Texas have indicated your support for these important efforts in basic research and so on.

So, a couple of things. I talked with you about the facility for where isotope beams at Michigan State University, a 10-year construction project that is going to end up with the world's most powerful radioactive beam facility that will advance new national defense and environmental technology as well as medical technologies. We need to have your continued support for that. We are in the middle of 10 years of Federal funding, Federal/State funding, and I would like to ask you if you will support our efforts to bring this to completion.

Mr. PERRY. Senator, as you and I, and I really enjoyed your intellectual engagement, an education for me on that particular project. Those are exactly the types of both basic research that then turn into applied research, that then turn into quality of life things that I had great joy and honor to be involved with while I was the Governor of Texas.

We went from no manufacturing of drugs in the State of Texas prior—well, of legal drugs—

[Laughter.]

Prior to the start of 2000 to 10 years later being able to see vaccines manufactured in that state to address pandemic events. Those are the types of things that change the world, and that project of which you shared has that same potential—

Senator STABENOW. Yes.

Mr. PERRY [continuing]. To literally change the world in a powerful and in a positive way. So, the idea that I am kind of foundationally invested in that type of thinking is there.

I look forward to learning more about it, to coming up and visiting this site with you, and then prioritizing both with this committee, with the Congress, and the Administration that this is the type of programs that not only we should be engaged with, that can make a difference, a real difference, in the quality of life, for the economic life, or hopefully both—

Senator STABENOW. Sure.

Mr. PERRY [continuing]. As we go forward.

Senator STABENOW. I appreciate that. And let me take another step, which is Department of Energy has played a very important role with manufacturers in public/private partnerships on a number of fronts that are very, very important. I mean, the manufacturing sector accounts for 25 percent of our energy usage. When we look in transportation, the largest challenge today—no surprise—is trucks, is big vehicles.

DOE has a Super Truck Program because we know that in terms of research and technology development, if we really want to decrease carbon emissions and be able to decrease energy use, you have to go where it is, which is in trucks and so on. There is a very important area where the Office of Energy Efficiency and Renewable Energy has funded a number of what we call manufacturing hubs. One is the Institute for Advanced Composite Manufacturing Innovation.

Just as we look at things like an ad for an American company here. Ford with their F-150 series, the F-150 truck has gone to aluminum composites, taken 700 pounds out of the weight of the truck which affects their fuel economy. So, these are all incredibly important.

What I am concerned about is this morning, because I believe you that you support these projects. But my concern is that we are now hearing in the press that the White House and the transition team, using Heritage Foundation budget proposals, are proposing, I would call it, to roll back funding for nuclear physics, advanced scientific computing research, to 2008 levels; eliminating the Office of Electricity; eliminating the Office of Energy Efficiency and Renewable Energy, which I am just now talking about; and scrapping the Office of Fossil Energy, which focuses on technologies to reduce carbon dioxide emissions.

And so, square this for me. I mean, how do you see your role? You are coming into a new position where we are talking about massive cuts in the kinds of things that you have advocated for, you supported in your role as Governor, that are critical to the future of the economy, and lowering emissions, and creating more efficiencies. If we are going to really do all of that, it needs to be the kinds of things that you have been talking about this morning. Yet we just have a new statement that we are talking about massive cuts in the Energy Department.

The CHAIRMAN. Governor Perry, Senator Stabenow's time has expired, so if you can just respond very briefly so that we can get to other members.

Senator STABENOW. Thank you, Madam Chair.

Mr. PERRY. Senator, I think all of us, having been in the business that we have been in for the years that we have, know that there are always a lot of statements sometimes. Just because it is

on the Internet, it is not true. I cannot answer whether that is true or not. What I can tell you is that I know that from my perspective that moving America forward on the supercomputing side, for instance, exascale, is incredibly important for this country's security. I have no questions at all about whether or not the Trump Administration is going to be very supportive of keeping America strong and free, and the technologies that come out of DOE in many cases are going to play a very, very important role.

I will be an advocate for that. I will be in the room advocating for these types of things. I am not going to tell you I am going to be 1,000 percent successful in that, but I can assure you, and the people who know me and who have worked with me know of my commitment to making sound science, economic science, connected together because at the end of the day they make great economic sense, and it makes great quality of life sense.

Senator STABENOW. Thank you.

The CHAIRMAN. Thank you. Senator Daines.

Senator DAINES. Governor Perry, welcome.

Mr. PERRY. Yes.

Senator DAINES. I have a great view here. I get to see your beautiful family behind you.

Mr. PERRY. Thank you. It is my best day's work, sir. [Laughter.]

Senator DAINES. Yes, sir, and I will say if I was in your chair, I would make sure I had Marcus Luttrell guarding my six as well. So, it is great to have an American hero.

Mr. PERRY. And his twin brother, Morgan, over here on the other side.

Senator DAINES. We were wondering about that. I tell you what, you can tell they are related, there are a lot of similarities.

Mr. PERRY. Just in case. [Laughter.]

Senator DAINES. Anyway, I have complete confidence truly in that you are going to work to restore this balance that I think the American people seek between fossil fuel and renewable energy investments and regulation. As they probably would say in Texas and we say in Montana, it is a blend of George Strait and John Denver. That is a melody that we need right now in this nation, and I think that has been lacking, frankly, in President Obama's Energy Department, and you will, I think, restore that balance. So thank you for considering this nomination.

Governor Perry, in our meeting we discussed what is going on in a small town in Montana called Colstrip. This plant is the lifeblood of this little town of 2,000 people. Seven hundred sixty-seven directly are employed by that operation. Colstrip generates enough electricity to power one and a half million American homes.

As you know, units one and two in Colstrip are scheduled to close due to environmental litigation, and they are under these job killing—this EPA Power Plan. The other two units are also at risk. In fact, there was a study done at the University of Montana, and they said that the EPA's Power Plan would kill 7,000 jobs in our state, \$500 million in lost revenues, \$140 million in lost tax revenues. We have a legislature right now that is meeting in Montana that once had a \$300 million surplus, and now the governor and the legislature are trying to sort out how do you make ends meet because the surplus is gone.

Montana, with the closure of these plants, will go from being a net energy exporter to now having to become an energy importer. I think that is a tragedy. These are regulations coming out of the EPA, but I do believe the Department of Energy under your leadership could do big things to protect its future.

As we discussed, the Crow Tribe in Montana, Governor, they have a 35 percent unemployment rate right now. If we lose those coal jobs on that reservation, that unemployment rate goes north of 80 percent, and this is poverty in rural America. In fact, we had an energy conference here about a year ago, and we had some protesters that came, and they had big signs that said, "Keep it in the ground," referencing coal. Little 12-year-old Evelyn Old Coyote, the daughter of the Chairman of the tribe, quietly walked up to those protesters and said, "You know, if you keep it in the ground, my people are going to starve." That is what is at stake right now.

I am concerned that if this Administration does not do anything to protect our existing coal fleet, like Colstrip, many Montanans are going to lose their jobs. Our state will lose its tax revenues, and our grid will become less secure and less reliable.

I said in our meeting that I would like your personal attention to this issue, and I do appreciate your commitment. I know you are going to be traveling a lot when you are the new Secretary of Energy, but I appreciate your commitment to come visit these communities and see it firsthand.

Some of the ways to protect our existing fleet and our baseload of energy are to facilitate research that can prove efficiencies at our coal plants and investment in carbon capture utilization storage technology. I am concerned that we have a real choice. We can lead in America with this technology, or we will cede this to the Chinese.

So, my question is, will the DOE support investments in carbon capture to use storage as well as other policies that will keep America's coal fleet running, including Colstrip, so we can continue to use this most valuable resource?

Mr. PERRY. Senator, I look forward to coming back to Montana and spending some quality time with the men and women who are being affected by the decisions that we collectively have made in this city that affect their lives. You have very eloquently and passionately shared with this committee and with the world the challenges that we have.

I remember well a decade and a half ago when there was an individual who traveled the country, and I think made a pretty good living, giving a speech about peak oil, that it was all—we are done. He did not know what the answer was for the alternative, but he basically said we are done. But because of technology that came out the DOE, hydraulic fracturing, the world has been changed and the world has been given a resource that we have been able to use to help lower the carbon emissions. I am talking about natural gas.

I mean, I will suggest that sometimes we get siloed in our thinking, and we go it as either/or. And so, you know, coal is bad, leave it in the ground, when the fact is I am certain, I feel positive that some scientist, some incredibly capable man or woman either at the DOE or in one of our universities or laboratories, has technology to be able to use coal in a way that is friendly, that is appro-

priate, and that can keep that little girl's family fed and warm and with a hope for the future.

To me that is what we are all about. We signed up for this to make a difference in people's lives, and you have passionately talked about that today. That is my commitment not just to you but to everyone in this room and on this committee that I am going to do everything I can to push the envelope, to think outside of the box, to come up with the answers to the challenges that we face as a country.

That is obviously one of them, and that is a big one, making sure that the people out in Hanford know that that is being managed, and they are—and they are starting to see some things really happen out there. Giving them hope that it is not just going to be another 30 years of the Federal Government kicking the can down the road. That is what I am committed to, Senator.

Senator DAINES. Thank you, Governor.

The CHAIRMAN. Thank you, Governor.

Senator HIRONO.

Senator HIRONO. Thank you, Madam Chair, and aloha to you, Governor, and your family.

Mr. PERRY. Hello.

Senator HIRONO. Fortunately, you and I had more than five minutes when we met, but unfortunately, I only have five minutes. So I framed my questions to elicit “yes” or “no” responses from you, and I hope that you will stay with that kind of a format.

Mr. PERRY. Yes, ma'am.

Senator HIRONO. Thank you so much. Governor, you have talked about pursuing an all-of-the-above energy strategy. As Senator Stabenow just mentioned, and, of course I also am aware that just this morning we learned that the Trump transition team intends to propose eliminating the Department of Energy's Office of Energy Efficiency and Renewable Energy, Office of Electricity, scrap the Office of Fossil Energy, which focuses on technology to reduce carbon dioxide emissions, and make other massive cuts to your Department. It is hard to see how we can pursue and all-of-the-above strategy if so much of the Department's all-of-the-above capabilities are eliminated. My question is, do you support these cuts, yes or no?

Mr. PERRY. Well, Senator, maybe they will have the same experience I had and forget that they said that, but—

[Laughter.]

Senator HIRONO. We are counting on you. We are counting on you to educate the incoming President. Moving on. [Laughter.]

You also stated, “Having educated myself, I believe the climate is changing. And that when it comes to climate change I am committed to making decisions based on sound science, and that also takes into account economic impact.” We have heard a lot this morning about making sure that there is a balance between what we need to do with regard to our energy future.

I want to ask you, does the economic impact include the costs of not doing anything to address climate change?

Mr. PERRY. Absolutely, and it is the reason—

Senator HIRONO. Great.

Mr. PERRY [continuing]. I took those—

Senator HIRONO. Yes.

Mr. PERRY [continuing]. Those steps I took as the Governor to lower those emissions, Senator.

Senator HIRONO. Thank you. Hawaii, as recently as 2006, relied on imported fossil fuel for 92 percent of its energy needs. So research, technical assistance, and grants, particularly the State Energy Program, from the U.S. Department of Energy have been instrumental in supporting Hawaii's shift towards locally-produced renewable energy. In fact, Hawaii has the most ambitious renewable energy goals in the entire country because we want to become a hundred percent energy self-sufficient for electricity by 2045. Can the State of Hawaii count on your continued support from the Department of Energy as it seeks to become energy independent and a leader in the clean energy economy?

Mr. PERRY. Yes.

Senator HIRONO. Thank you.

Mr. PERRY. Finally.

Senator HIRONO. I am very troubled by recent news reports that the President-elect's transition team has not asked the Administrator and Deputy Administrator of the National Nuclear Security Administration, NNSA, to extend their service past January 20th. This would be the first time in NNSA's 16-year history that senior leadership will not be kept possibly on for the incoming Administration. I know that you said you wanted a smooth transition, but I am wondering whether this is an area that we can afford to not keep these people on. Will you commit to a continuity of staff to ensure the Department of Energy's ability to protect and manage our nation's nuclear weapons stockpile?

Mr. PERRY. Senator, I am not concerned that the continuity of protecting our stockpiles is going to be in place. As I said earlier, we have sent the message. We have interviewed the existing staff. I do not think anyone would sit here—I hope not anyway—and say you will keep every person that there is over there without interviewing them, having interaction.

I will suggest to you my 14 years of governing Texas and being the CEO of that 12th largest economy in the world, I know something about identifying good talent, putting them into place, and I will interview appropriately. But as I shared with Senator Heinrich, the Administration has the final decision on a presidential appointment. We are quite comfortable that that process—

Senator HIRONO. Well, Governor, you managed to get away from a “yes” or “no” answer. Thank you very much.

Mr. PERRY. Well, that one I cannot give you a “yes” or “no” on.

Senator HIRONO. I understand. I also understand that one of the reasons Texas is a success widespread adoption of renewable energy, particularly wind power, is the goals that the State set in 1999. As I mentioned, Hawaii has a similar goal. In 2012, I called for the creation of a national renewable energy standard because setting a goal, as you well know in Texas, gives the private sector the certainty to make the kinds of investments needed to meet the goals set by a large state like Texas. Would you support a national renewable energy standard, provided that it can achieve baseline—their achievable baseline standards—

Mr. Perry. Senator—

Senator HIRONO [continuing]. Or national standard?

Mr. PERRY [continuing]. You know my—you know my position on federalism and that one-size-fits-all, except in gym socks.

Senator HIRONO. Okay.

Mr. PERRY [continuing]. Generally does not work that well.

Senator HIRONO. That is fair. So, if you are going to leave it up to the states, would you at least continue to support states' efforts in these areas?

Mr. PERRY. Absolutely. I will talk to any governor about the wisdom of using their universities, using their private sector, using the Department of Energy where it fits to come up with the technologies that moves forward their states' positions from the standpoint of renewables, where it fits in, where it makes sense. I will be happy to give them the roadmap on how to do that.

Senator HIRONO. Thank you. My time is up.

The CHAIRMAN. Thank you.

Senator HIRONO. Thank you, Madam Chair.

The CHAIRMAN. Senator Gardner.

Senator GARDNER. Thank you, Madam Chair. And Governor Perry, thank you very much. Welcome to the Energy Committee. And thanks for—

Mr. PERRY. Thank you, Governor, or, excuse me, Senator.

Senator GARDNER [continuing]. The patience to go through this process. Thanks to your family for being here to support you and your commitment to public service as well.

I want to just follow up a little bit on what Senator Daines talked about. I think it is very important that we recognize there are places across the country, like Naturita, Colorado; Nucla, Colorado; Meeker, Colorado; Craig, Colorado; Delta, Colorado. These are places—Montrose, Colorado—that a lot of people have or may never hear of, but there are places that have been dramatically affected by our government, places that have been hurt by over regulations. They are places that I visited, coal miners and workers who are out of work because of a government that is faceless to them but had real consequences at the dinner table.

Your job at the Department of Energy is not necessarily to say here is a coal regulation, here is an oil regulation, here is a wind regulation, because that is not all of what the Department of Energy does. In fact, there may be no role for Department of Energy in certain of those areas. But certainly the EPA has affected greatly the Western Slope of Colorado, the eastern plains. Certainly, the Department of the Interior and our public lands have affected the jobs which can be created as part of our all-of-the-above energy strategy and policy in this country. Even the Department of Agriculture, the Forest Service, has affected our ability to produce affordable energy, whether it is the Pawnee National Grasslands in eastern Colorado or perhaps areas in the Western Slope.

I would encourage you, as you sit in the Cabinet and you talk about the goals for this country, that when we talk about the impact that this government has, know that one agency has a tremendous impact on the work that another agency is doing, and that it should not just be the EPA that is out against this part of Colorado, and the Interior Department that is affecting this area, that they all together layer up in a big way that has real impact on the people of our country.

Thank you for your commitment to work through those tangled webs of government overreach that has put people out of work and hurt people in my State of Colorado. We all recognize the need to protect our great outdoors. We spend a tremendous amount of time in this committee talking about how we can protect our great outdoors, making sure that it is better tomorrow than it is today. But we also have to recognize that those people in Nucla, those people in Naturita, those people in Montrose cannot all be trained to install solar panels in Meeker, but they have to do work right at home as well.

I want to talk a little bit, you and I have had a lot of discussions about an all-of-the-above energy policy. It is extremely important for this country. Colorado is, if you look at the statistics, we are the seventh ranked state in terms of crude oil production. We are the sixth ranked in natural gas, I think, and over the past couple years, we were even higher than that. We are also the 10th ranked in production in installed wind capacity. We have 14 wind manufacturing facilities, at the leading edge of turbine manufacturing, blade manufacturing, tower manufacturing. It is incredible to see what we have done with an all-of-the-above energy policy in Colorado.

That being said, I want to make sure that we keep an all-of-the-above energy successful policy successful. One key component of that is National Renewable Energy Laboratory in Colorado. This is a nearly a \$1 billion economic impact nationwide of the country. For every \$1 that is invested at the Department of Energy through NREL secures about \$5 additional dollars in private sector funding. It is a facility that is known for its commercialization, taking projects from the lab to the marketplace, ready to be a part of our diverse energy sector.

After you have traveled to Hawaii—I am sure that may be the first state on the committee that you visit—I hope that you will come to Colorado and visit the National Renewable Energy Laboratory to see the important work they are doing there. Please know you have an early invitation to visit NREL, and I would like your commitment to working with me to understand the work that is done and how it is a part of our all-of-the-above energy mix.

Mr. PERRY. Yes, sir. Senator, I look forward to coming, to visiting as we—I will not dwell on this, but you were very enlightening to me from the standpoint of what they do there. Those are obviously the types of technology, the applied research that can then be commercialized that I think we have a role to play, and we should be engaging in. So, I look forward to a long visit there.

Senator GARDNER. Thank you. And obviously some of the work they are doing at NREL deals with grid modernization efforts. The supercomputers that they have at NREL and the national laboratories across the country focus on grid modernization, energy efficiency. The Energy Systems Integration Facility, which is located at NREL, a research center that both private industry and the public sector is using to modernize the electrical grid, provides basically a central hub for integration of private and public research efforts on wind, solar, biofuels, and transportation efforts. So, as Secretary, would you continue the work being done on grid modernization efforts?

Mr. PERRY. Yes, sir. The two areas that NREL will have a role to play, I would suggest going forward, without having deep knowledge of the programmatic line items there, but obviously developing that next level of supercomputing and its impact upon the grid in both hardening and protecting the grid. Both of those are going to play a very important role as we go forward at the Department of Energy.

Senator GARDNER. Along with cybersecurity, I think that is very important.

Mr. PERRY. Yes, sir.

Senator GARDNER. I look forward to working with you on these issues critical to the energy future of this country. Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Gardner.

Senator Manchin.

Senator MANCHIN. Madam Chairman, thank you, and, Governor, thank you for—

Mr. PERRY. Yes, sir.

Senator MANCHIN [continuing]. Continuing to want to serve, and we hope that is the case.

Let me just say that coming from an energy state, West Virginia, Texas, all of us who have really had some heavy lifting states for over the years, we take for granted the lights are going to come on every time we hit the switch. We take for granted that our air conditioning is going to work, our heat is going to work, our refrigerator is going to keep our food from perishing. Everything is going to work. We have taken that for granted. Unbelievable.

I had a person one time say, "Governor, I do not know why you all use coal in West Virginia. Why do you not just use more electricity?" [Laughter.]

Now, that tells you what we are dealing with. That really tells you really the scope of what we are dealing with. I want to put it in perspective because I am sitting where I sit and trying to defend basically an all-in energy policy. I am for everything. I am for all the wind, solar, renewables, and everything.

But you have to be rational and practical. Where does our baseload come? And when I talk about baseload, people do not know what I am talking about. I said just everything I talked about. Lights come on when you want it. Your refrigerator works when you want it. You can wash your clothes when you want to. You have got to have something that will work 24/7. You have got to have baseload.

The only thing in this country that gives you baseload today is coal and nuclear. Gas is coming on as baseload, but until we get the pipelines, you are not going to have everything you want, maybe in Washington because of hydro from Canada. Other than that, a lot of us do not get it. So I am trying to look at a rational position.

I said, and we are talking about all the cuts and everything, and I really, really appreciate your answers. They are very good. With that you are going to look at whatever you have, whatever money you have to work with. All I am asking for is proportionate of how you are going to spend in research and technology.

I would say this to you. The mix we have right now on energy, coal and natural gas in 2015 was 66 percent of the energy, produced 66 percent of our energy, coal and natural gas. Nuclear, 20 percent. Renewables, 13 percent.

Now, let me tell you in President Obama's budget for 2017, and they wonder why I have odds at this, 66 percent is supposed to come—energy is supposed to come from coal and gas. He committed \$600 million for research out of \$4.5 billion. That is 13 percent. Nuclear, nuclear produces 20 percent. It is allotted \$994 million. That is 20 percent, proportional. Renewables, 13 percent. He committed \$2.9 billion, or 64 percent of our research dollars, and only get a return on 13 percent of the energy. Even if it goes to 20 or 25, 75 percent, and it is not going to be a baseload. The wind blows at night. You do not use your electricity. You do not usually wash your clothes at 2:00 in the morning.

We are just trying to make sure that we understand. Until we get that new technology, that energy future, you better take care of what you got. So I would ask basically with this mix, can we look for more of a proportionate mix so we can do it better?

Mr. PERRY. Yeah. Senator, what you have my commitment to is also backed up by my record, and my record as the Governor of Texas has been that individual who was not afraid to get outside of the box and to look at some things, to base your decisions on sound science. And interestingly with that, I think it is important for us to keep in mind that from time to time science gets it wrong, you know.

Again, we had a lot of people coming and telling us in the early 2000s that we had found all the oil that we were going to find, and we found out that was not the case.

Senator MANCHIN. Yes.

Mr. PERRY. And had we completely made all the changes in our operations, we would probably be in a bit of a sling right now.

I am committed to an all-of-the-above policy with the knowledge and the history of being an individual that believes in finding more efficient, more effective, more positive impact on our environment technologies.

Senator MANCHIN. I think—if I can—

Mr. PERRY. Yes, sir.

Senator MANCHIN [continuing]. Real quickly. The only thing I am saying is we get the living crap beat out of us doing the heavy lifting and doing the dirty work. If you do the coal, which we do in West Virginia, we do the natural gas, and nobody likes it, but they sure as heck use it, okay? That is all I hear about.

They want us to make it cleaner, but they say we cannot make it cleaner. Well, when you do not have any commitment from the Federal Government to do what they said they want to do and give us the money to find the next technology or the next research through technology that we can get to that next level, then do not continue to berate us because you are not going to do it any other way. You need us. You just do not like it. But we will do it better if you will work with us.

Mr. PERRY. Do not get me confused with the previous Administration. From the standpoint—

Senator MANCHIN. Trust me, I will not. [Laughter.]

Mr. PERRY [continuing]. From the standpoint of being an individual who has promoted those sources of energy that can drive an economy, and at the same time help our environment.

Senator MANCHIN. Yes.

Mr. PERRY. I have a record of doing that, Senator. And you can expect if I am so fortunate as to be confirmed by this committee, that same commitment, but also that same action and activity—

Senator MANCHIN. Well, I appreciate that and look forward to working with you.

Mr. PERRY. Thank you, Senator.

Senator MANCHIN. Thank you.

The CHAIRMAN. Senator Manchin.

Senator Flake.

Senator FLAKE. Thank you.

Thank you, Governor Perry. Great to hear from you and meet in the office. I just wanted to follow up on a conversation we had there as well.

As you know, there are four Power Marketing Administrations that fall under the purview of DOE, and I often hear from Arizona electric consumers that are frustrated with the Western Area Power Administration, WAPA.

A good number of WAPA customers in Arizona are rural co-ops and irrigation districts that really need to keep their electric rates low. They have been concerned with transparency at WAPA, at some of the spending that has been going on and some unobligated balances that they have and why those have not resulted in lowering of rates. Just yesterday, I sat down with WAPA Administrator Gabriel for an update on their unobligated balances and the numerous internal audits to ensure fiscal responsibility.

Can you commit to work with me to make sure that Arizona customers get the lowest rates possible from WAPA?

Mr. PERRY. Senator, we will commit to work with you to make sure that the Department of Energy follows the statutes and the laws and the Constitution, and not go outside those bounds. If you ever see the agency participating in something like that, I know I can expect a phone call from you.

Senator FLAKE. All right. Well, thank you. I appreciate that.

As you know, Arizona is home to the nation's largest nuclear plant, and so, obviously, the nuclear policies of the Department are of interest to any of us in Arizona. The nuclear power industry needs a resolution to the long-term storage problem that we have. What will DOE do under your leadership to bring some kind of resolution to that issue?

Mr. PERRY. Senator, as I have made in some earlier remarks, both to the Ranking Member and to the members as a whole, the time of kicking the can down the road on dealing with this issue, my goal will be that those days are over, that we can have a thoughtful conversation, a productive conversation, a conversation where the citizens of your state and these 35 different states that are repositories today, not by their desire, but by the inaction of the Federal Government over the course of the decades. That we can, in fact, number one, by making good decisions here, looking at alternatives, by making a real commitment to clean up the envi-

ronment in these states and truly find both the interim and the long-term storage answers to this extremely difficult situation.

Senator FLAKE. All right. Thank you.

I am encouraged to see that research is being done around the U.S. in terms of the future of nuclear energy, new technology, particularly the small modular reactors. In what ways can DOE work with the private sector? I know there are companies, NuScale Power, and obviously, you need to work with the Nuclear Regulatory Commission on this. How can DOE further this research and speed the adoption of some of these new technologies?

Mr. PERRY. Again, I think my historical engagement with universities as a Governor, and obviously, the relationship with—I think there are 11 Senators who were Governors, and their counterparts in their states, hopefully, we can find not just the private sector and DOE but also a third partner that I think is very important, and that is our universities and the scientists and the men and women that are there. So I find the entire concept of the small modular reactors as a fascinating—as one of the alternatives we need to have a conversation with.

But again, I will go back to say that none of these are going to move forward with the expedition that we would like until we find the answer and are willing to address this issue of dealing with the waste that we have in the states today.

Senator FLAKE. Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Flake.

Senator Franken.

Senator FRANKEN. Governor.

Mr. PERRY. Senator.

Senator FRANKEN. Thank you so much for coming into my office. Did you enjoy meeting me? [Laughter.]

Mr. PERRY. I hope you are as much fun on that dais as you were on your couch.

Senator FRANKEN. Well——

[Laughter.]

Mr. PERRY. May I rephrase that, sir?

Senator FRANKEN. Please. Please. Please. Oh, my Lord. Oh, my Lord. [Laughter.]

Mr. PERRY. Well, I think we found our Saturday Night Live soundbite. [Laughter.]

Senator FRANKEN. Let's move on. [Laughter.]

One of the fun things on the couch was when you said——

[Laughter.]

That the shale energy boom owed a lot to the Department of Energy. This is something I think my colleagues on the other side have almost gotten sick of me saying.

But you make a great validator, and we talked about this, so I know that you agree that the Department of Energy was an enormous factor in the shale boom. Is that right?

Mr. PERRY. I would suggest to you that there were technologies that were moved forward at the DOE that both our universities and the private sector then took and implemented together that allowed for the shale revolution to occur. But the private sector had a substantial amount to do with that.

George Mitchell, who was a Texas geologist, was a great example of an individual who heard scientists and, I am sure, his private sector friends time after time said you are wasting your time and wasting your money—but he believed in it. I give as much credit to him as I do the DOE, but I think the DOE has a role to play.

Senator FRANKEN. Well, as a matter of fact, the vice president of his company, Dan Steward, said this, and I quote, “DOE started it, and other people took the ball and ran with it. You cannot diminish DOE’s involvement.”

Really the reason I bring this up, not just to lord that over my colleagues who doubted me, but also to just point to the importance of research from DOE in solving all these problems that we have. That is why I hope these reports on cuts in DOE are not true. Things in the new Administration seem to be fluid, shall I say.

I want to go to climate change. As we discussed in my office, I believe that climate change is an existential threat, and one of the most serious challenges of our time.

In your 2010 book, you claim, “We have been experiencing a cooling trend.” Well, it was just announced yesterday, as Senator Heinrich said, that this is the hottest year on record. The year before was also the hottest year on record. The year before that—the first time 3 years in a row have been the hottest year on record.

In 2014, you said, “I do not believe that we have the settled science by any sense of the imagination. Calling CO₂ a pollutant is doing a disservice to the country and, I believe, a disservice to the world.”

Now I see in your testimony that your views have been evolving on this, and you note that man is responsible for some climate change. How much climate do you think the science shows is due to human activity?

Mr. PERRY. Senator, far from me to be sitting before you today and claiming to be a climate scientist. I will not do that.

Senator FRANKEN. I do not think you are ever going to be a climate scientist, but you are going to be the head of the Department of Energy.

Mr. PERRY. That’s correct, and I know how to hire really good scientists.

Senator FRANKEN. Well, 97 percent of climate scientists say that this is real and that we are going to be approaching at the end of the century 3.5 Celsius increases in temperature, which would be disastrous, and I do not want that for my grandchildren.

Let me put that number, that 97 percent, in context. A recent survey found that only 95 percent of scientists are sure that cigarettes cause cancer. So it seems to me that the science on climate change is pretty definitive.

So I just do not want, and I know my time is out, I do not want this idea of the economy and addressing climate change at odds at all. As you saw in your state, people stay in your communities that have wind. Those towers are big. They are tall. Only young people can go up those towers. They keep young people in your community.

We owe it to—I do not know if you have grandchildren yet. I know that your daughter—

Mr. PERRY. A little early for that. They were just married in October.

Senator FRANKEN. Yes. Yes, too early. See, I am not a mathematician. [Laughter.]

My time is over. It is gone. It is done. Thank you.

Mr. PERRY. Thank you, sir.

The CHAIRMAN. Thank you. We need a little levity every now and again.

Let us go to Senator Risch for some more.

Senator FRANKEN. What? Am I a clown to you? [Laughter.]

Senator RISCH. We are going to ignore that, Senator.

Governor, thank you for being willing to do this.

First of all, you earlier apologized for raiding four businesses in other states when you were Governor. You know, there are four former Governors on this committee, two and two. In that regard, I would say you do not ever have to apologize for that. We have all sinned in that regard in our former lives, some quite successfully, I might add. So no apology is necessary.

You are taking over arguably the most complex and broad-reaching agency within the government. Now you might say that DOE maybe has a broader span in different ways, but as far as reaching Americans lives, this is probably as broad-reaching as it gets. And it is incredibly complex. Your soon-to-be predecessor was a nuclear physicist, as you know. We actually got along with him quite well. He was very intimidating when he started talking about nuclear physics. But in any event, my contention would be you do not have to be a nuclear physicist to run this agency.

As Senator Manchin adequately described what happens when you become Governor, nobody hands you a manual. Your success or failure depends upon your own ability to manage an incredibly broad-reaching range of services and issues for the people of your state, and it all depends on the people that you bring around you, obviously, because you have to have experts around you. Believe me, in this agency you are taking on, you are going to need lots and lots of experts to help you do that.

Everybody has talked about their states. We have, in Idaho, the Idaho National Laboratory (INL), which is the birthplace of nuclear energy in the world. The first lightbulbs lit by nuclear energy were done so there at the lab, and it is today the lead laboratory on nuclear energy.

I have to tell you, after I met with you, I was really impressed with how you are getting your arms around this. There are a lot of different laboratories in the country. Most Americans have no idea what they do or the complexity of them, and I was very impressed with the way that you are getting your arms around them.

A couple things that you and I talked about, and I appreciate your commitment to, and that is also the INL, in addition to its nuclear mission, is now becoming one of the lead laboratories—there will probably be three of them altogether—dealing with this cybersecurity and control systems issue that is an incredible vulnerability here in America. You and I talked about that a little bit. Can you tell me your thoughts on that publicly?

Mr. PERRY. Yes, sir.

Senator RISCH. We talked about it privately. I think you should have the ability to talk about this publicly.

Mr. PERRY. Thank you, Senator, and thank you for relaying the interesting juxtaposition that Governors have when it comes to managing the kind of complex issues that they face. Again, I go back to—I think that is a very good prerequisite and foundation. Ernie Moniz and I are good friends. I mean, we have known each other—Bill Richardson. Interestingly, I think in the history of the agency, there have only been two nuclear physicists that were the heads of the agency. There has been a Governor or two.

So the issue, from my perspective, is being able to manage and prioritize what is important, and finding those individuals who are some of the best in the business. You may not be able to bring them into government, but you can draw them into the process, a great many times because of their patriotic commitment to this country.

So on the cybersecurity side, that will be my intention, to go find men and women in the private sector, in our universities, at the DOE.

As you know, our national labs, they are the repository of some of the extraordinary brilliance in the world. They truly are a crown jewel of this country from an intellectual and particularly a scientific standpoint. Putting together a team, obviously, working with other agencies, DARPA is going to play an important role. I would suggest to you there are many other areas. But to coordinate cross-agency I think, Senator, is really going to be important as well. To have the support not only of the Administration but of Congress and the private sector on what I consider to be one of the great challenges that we have in the short span, because this arena is going to change, and it is going to change in a hurry.

Just like the supercomputing side, we have allowed ourselves to get a bit behind in supercomputing. As a matter of fact, that is one of the areas that I think dovetails into the cybersecurity side, is our ability to move forward to that next generation of supercomputing, the exascale models that are going to be out there.

So you will see the same commitment that I made, that I had, that we had a success in, in my home state, of going literally from zero to the manufacturing of vaccines for pandemic events. I mean, I know that we can do this, and I know that we have the expertise.

We need the management. We need the resources. But we can successfully put into place cybersecurity practices that not only secure our private conversations from that matter, but to the more important side of things, our electrical grid and our military capabilities.

Senator RISCH. Thank you. Well said, Governor.

My time is up. I am sorry we did not get a chance to talk about the small modular reactor. I know you are a real fan of that. That is being developed at the INL. Also, of course, at the INL, we develop all of the space batteries and produce the space batteries that actually go out on these missions. We will talk about that more. My time is up.

Thank you, Madam Chairman.

The CHAIRMAN. Thank you, Senator Risch.
Senator King.

Senator KING. Governor, at the risk of beating the fraternal order of Governors subject into the ground, I remember meeting you 16 years ago tomorrow on the steps of the Capitol, standing next to one another at George W. Bush's Inauguration. So the amazing thing to me is that neither one of us has aged a day. It is extraordinary.

I also want to caution you that this is the only committee around here where you can use the word "sequester" and expect a positive response. Nowhere else do you get that.

Mr. PERRY. Yes, sir.

Senator KING. People have talked about these cuts. You are going to be called upon to lead in the next several weeks and months. The cuts that are being proposed, if, indeed, the media reports of this morning are correct, are devastating, and they go to the heart of what we have been talking about today. I hope the people that are proposing these cuts are watching this hearing, because they heard Senator Hoeven use the phrase "technology really is the way forward."

You have talked about it. We talked about the role of the Department of Energy in fracking research, and just moments ago, you were talking about advanced computing. That is one of the items on the cutting board, apparently, which is absolutely beyond me. Eliminate the Office of Electricity, Office of Electrical Efficiency and Renewable Energy, Office of Fossil Energy. This is absolutely nuts in terms of the future of energy in this country.

It seems to me DOE has essentially two functions. One is the nuclear enterprise, which you have discussed. The other is research and basic research that then can be taken by the private sector and turned into the revolutionary changes that are changing our society, whether it is in fracking or in renewables or offshore energy, whatever it is.

You are going to have to really do some hard pushing back on this, because assuming this is true, I find it is almost self-parody to be cutting energy research at this moment in time. Will you commit to me that you are going to be lionhearted in this endeavor to protect your agency, because they are cutting the legs out from under you?

Mr. PERRY. Senator, I have a rather interesting background, not unlike yours, of defending budgets, both from those who are in the know and sometimes people who—

Senator KING. It is hard for me to believe that the people that are recommending these cuts are in any kind of know.

Mr. PERRY. I will allow your statement to stand.

My point is, I know what the Department of Energy should be good at. I have spent enough time making myself aware, both talking to individuals inside the agencies, individuals who have been there before—

Senator KING. I am going to have to cut you off, because the chair is so rigorous about our time. But I really hope you will be strong in this, and I think you have indicated that you will.

On an entirely different subject, we have talked several times today about LNG exports. Here is what is of concern to me. We have now got the total production of natural gas in the country to about 75 BCF a day. We have already approved 14 BCF, which is

about 20 percent of the total production, for export. In the queue is 71 percent of the production for export.

If that happens, there is no way in the world—this Congress cannot repeal the law of supply and demand—and there is no way in the world that that will not drastically and significantly affect domestic prices, which has been one of our advantages vis-a-vis the rest of the world in terms of bringing manufacturing back and sustaining our economy.

The Natural Gas Act back in 1938 says that for the Department of Energy to issue a permit, it has to be in the public interest. My request of you is to be sure that the public interest definition includes effect on domestic prices. Will you give me that commitment?

Mr. PERRY. Senator, what I will commit to is finding ways to make sure that we do not artificially affect supply and demand. What I will suggest to you is that there are decisions that have been made in Washington, D.C. that have artificially affected supply and demand, and it has been on the supply side.

I would ask the EPA and the Department of the Interior, and whether it is Congress and on the tax and regulatory side that they can affect, to make sure that we have the ability to fill the supply, because the demand is going to be there. If we produce it in America, it makes abundant good sense to me for us to sell it to the world.

Senator KING. Unless doing so significantly increases domestic prices, which is exactly what happened in Australia, where they are now exporting almost all of their natural gas, and their natural gas domestically I think tripled in price. That would be a disaster for the economy of this country.

Mr. PERRY. Yes, and I totally understand that. But my point is that when we look at this entire issue globally, we need to make sure that we are not making decisions here that are affecting the ability to supply, so that you can keep the demand addressed in a thoughtful and a fair way that does not drive up the cost to where a manufacturing base, for instance, of which we are trying to bring America back in a strong and powerful way, would be affected in a negative way.

Senator KING. Low-priced natural gas is an advantage we have I would hate to lose.

Thank you, Madam Chair.

Mr. PERRY. Yes, sir.

The CHAIRMAN. Thank you, Senator King.

Senator Portman.

Senator PORTMAN. Thank you.

Governor Perry, thank you for your willingness to step up—

Mr. PERRY. Yes, sir.

Senator PORTMAN [continuing]. And serve again in a different way, and your family for sacrifices that involves.

I enjoyed our meeting. Apparently it was not as scintillating at the conference table here as your one on the couch with my colleague from Minnesota.

Mr. PERRY. Yes, sir.

Senator PORTMAN. But it was interesting, and we talked about a number of topics.

One was the importance to my state and to the nation of having a uranium enrichment capability. In Piketon, Ohio, we have a plant that produced enriched uranium until about 2000. At that point, it was shut down. It was the gaseous diffusion method, and it is now being cleaned up. When President Obama ran in 2008, he promised to accelerate that cleanup. In fact, just the opposite has happened. Pretty much every year we have had to fight just to keep the cleanup in place. It has gone from a 2024 time frame to a 2044 end date, costing taxpayers, by the way, billions more by stretching it out and not being more efficient about it.

I am very disappointed in the Department of Energy for their inability to follow through on their commitments to the plant. Frankly, it is really difficult for people who work there. They just never know if their next paycheck is going to be there. This usually happens around Christmastime, as it did this past Christmas.

So one question for you. Would you be committed to looking at this cleanup effort in a more logical way, helping to ensure that we have the funds necessary to be able to expedite that cleanup, which, again, provides security to these families, but, importantly, lowers the cost for the taxpayer by getting this cleanup done?

Mr. PERRY. Senator, I will commit to you that I will become as educated on this issue as I can, in the most expeditious way that I can manage it, and employ management skills and capabilities.

I, again, without knowing the deep details of this, but my instinct tells me that this is an issue of execution, of good management.

Senator PORTMAN. I thank you for that, and I will put you on the spot here further.

Secretary Moniz, when he went through his confirmation hearing, committed to come to the site. We never managed to work that out. I would love for you to see the site. It is a couple thousand acres. As I told you, it has incredible infrastructure, electricity and water. It would be a great site for a future plant, including a power plant, including a nuclear power plant. The community is very supportive.

Would you commit to come out and to see this yourself, to see the huge investment the Department of Energy has made into this facility?

Mr. PERRY. Senator, I will commit to that, and I will suggest that you know how to get ahold of me if I do not show up on a timely basis for you.

Senator PORTMAN. Right. Well, thank you.

Second, we started a new centrifuge technology project there a few years ago. We were very excited about that. In late 2015, without any notice, the Department of Energy shut that down. Unfortunately, they had spent hundreds of millions of dollars in taxpayer money up to that point. Those centrifuges are still there. They are not spinning anymore. They are apparently going to be sent to the desert, which is an enormous waste of taxpayer money.

We have no ability to enrich uranium in this country. We have to rely on foreigners at a time when we have increased volatility globally, and at a time when, ironically, we are telling Iran they can go ahead and enrich uranium for their domestic purposes. We, as Americans, do not have the ability to do that.

My question for you there is, would you also be willing to look into this issue? I am not going to ask you for a specific commitment today on restarting this because I know you need to research it, but I hope that you will give this your personal attention and objective consideration, because it seems to me we need to have enrichment capabilities in this country. Do you have a response to that?

Mr. PERRY. Senator, I will give it the appropriate and thorough study. In addition, I will say that the enrichment of uranium in the United States is a national security issue, and one that I take very seriously. I look forward to working with you to not only understand this issue better, but if it is concluded, as I suspect it will, that this is, indeed, a national security issue that needs to be addressed either by the United States Congress and/or the Administration, you will have a willing partner in making sure that the DOE does it in the most efficient, most effective, and most economically feasible way that it can.

Senator PORTMAN. Well, thank you, Governor. It is a national security issue. There is no question about it, not just being reliant on foreign countries, including Russia, for uranium, but also because we need low-enriched uranium for tritium in the nuclear stockpile. And, of course, we need to have enriched uranium for our nuclear Navy.

I know we have stockpiles now, but we do not have the ability to quickly be able to enrich. It probably takes a decade to get this back up and going, if we shut it off altogether, at, again, an enormous cost to taxpayers.

Finally, just one last question. We talked a lot about energy efficiency in our meeting. I told you about the fact that this committee overwhelmingly had voted out an energy efficiency bill equivalent of taking 22 million cars off the road by 2030. We also passed it in the entire Senate, 82-15, as I recall.

Both the Ranking Member and the Chair have been at the forefront of this issue. I would like your commitment today that you will work with us on energy efficiency and help us to get that legislation across the line.

Mr. PERRY. Yes, sir. Use me as you see fit.

Senator PORTMAN. Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Portman.

Senator Duckworth.

Senator DUCKWORTH. Thank you, Madam Chair.

Thank you for being here, Governor Perry. I look forward to your visit to two of the DOE's crown jewels, Fermilab and Argonne National Laboratories in Illinois.

Governor, while I served in Iraq, I risked life and limb, as did so many brave young Americans, protecting diesel fuel supply lines, and I saw firsthand the painful price this nation pays because of our reliance on foreign oil.

So for me, investment in renewable energy is not only about the environment, not only about jobs, not only about competing with China and other nations that are making huge investments in clean energy. It is also a very clear national security imperative for us.

Under your leadership, Texas made impressive progress in wind energy production, but I do worry that you have made statements

opposing Federal Government involvement to encourage investments in any energy sector. With the successes you have seen in wind energy, I know that you must recognize that these gains could not have been made without Federal support. Our nation's wind industry would not be where it is today without the Federal Government, and I want to replicate the success in wind energy that you saw in Texas under your leadership. I would like to do that in Illinois and across the nation. Will you maintain the support of programs at DOE that promote renewable energy programs that strive to move us forward and away from our heavy reliance on fossil fuels?

Mr. PERRY. Senator, thank you. Just as an aside, I want to say thank you for your service.

Senator DUCKWORTH. Thank you.

Mr. PERRY. There are few people in this room that have made the commitment to this country that you have.

Senator DUCKWORTH. Thank you.

Mr. PERRY. There are some in this audience that have, but we collectively thank you for your service.

Senator DUCKWORTH. Thank you.

Mr. PERRY. You and I had a pretty broad-ranging conversation about the alternative renewables that are out there, the least of which is not wind. And my home state aggressively and very positively supported that.

There is, I think, a role for the DOE as we go forward, continuing to find the technological advances, whether it is on turbines, whether it is on blade design, whether it is on some other aspect.

One of the first emerging technology fund grants that we made after I had helped create that program was on nanophotonics and recruiting some top scientists in the world to Texas Tech University on the solar side. My commitment will be to look at every program.

Senator, I think you know my record. I am a fiscal conservative, and I do not back away from that. I think that is a badge I wear with honor. But I do believe that there is a role for us to play both at the State level and at the Federal level to continue to put forward, funded by our taxpayer dollars, technologies that can, in fact, make us more efficient, make us more economically viable, improve our quality of life. That is my record, and you cannot change the stripes on this zebra. I mean, it is just the way I am. It is what I believe in. The Administration knew that when they asked me to serve in this role. I am committed to the continuation of using these brilliant scientists, the private sector, our universities, in collaboration to finding the solutions to the challenges, whether it is on renewables or whether it is ways to use resources that we have in a more efficient, safe, effective manner.

Senator DUCKWORTH. Thank you.

You have spoken quite proudly of our national laboratories, and both Fermilab and Argonne are major employers in Illinois. But they also are developing next generation battery storage, advanced supercomputers, and exploring even the smallest building blocks of matter.

You and I spoke at length also about the need to develop ways to store, perhaps reuse, nuclear fuel. I just popped out a little bit ago to meet with the students from Zion-Benton, Illinois—go fighting Zee-Bees, they told me I needed to say that—who are from a town that cannot develop valuable lakefront property because there is a decommissioned nuclear reactor there. And that nuclear fuel, spent fuel, we have not been able to find a way to take care of it. I just want to make sure that you are committed to supporting these national laboratories and the very important work that they do.

Mr. PERRY. I will not burn your time, the committee's time—
Senator DUCKWORTH. I am out of time anyway.

Mr. PERRY. By reiterating my commitment to managing that issue. I think I would suggest to you it has been both a political and a management challenge. Hopefully, as we go forward, we can stand together as a country and talk about a legacy that we finally made substantial progress in removing waste from your states to places both interim or long-term that address this challenge.

Senator DUCKWORTH. Thank you.

Mr. PERRY. Thank you, Senator.

The CHAIRMAN. Thank you, Senator Duckworth.

We have finished our first round. We will have an opportunity for another. I appreciate the fact, Governor, that you have been sitting for a considerable period of time. Hopefully, we will be able to move quickly through this second round and not put you through too much more, if you have the endurance.

Mr. PERRY. I am here at your service, ma'am.

The CHAIRMAN. That is what we love to hear. We appreciate that.

Governor, I am just looking through my morning clips and the front page of the Fairbanks Daily News-Miner, where I went to high school, "Frigid Fairbanks Today," and the Denali State Bank sign that has the temperature. It says it is 52 below. That is the picture. So it is cold back home, and when it is cold, you need to stay warm. And when you need to stay warm, sometimes, again, it can be very costly to stay warm.

When we talk about all-of-the-above energy policies in Alaska, we really live it and perhaps more so than others because, at times of the year like this, your life depends on your ability to keep warm.

But it is not just the oil and the natural gas and the coal and the fossil fuels that we have. The people in Fairbanks do not have the benefit of natural gas. They are a community that right now is effectively relying on home heating fuel, so it is expensive for my sister to keep the house that I was raised in, to keep it warm during the wintertime.

As we look to find solutions, one of the things that we are looking to in Alaska is the prospect, the ability, to access our natural gas from the slope and to be able to access that for the benefit of Alaskans and, really, for the benefit of the country. I look forward to your commitment to help us work to facilitate that natural gas pipeline.

But we also have so much more. We have wind. We do not have a lot of solar right now. It is a little bit dark, but that changes very

soon. We have incredible opportunities. Twenty-four percent of our energy produced in the state comes to us from hydropower, an amazing resource down in the southeastern part of the state. Unfortunately, hydropower is not viewed as a renewable resource. I would like to work to change that with you.

We also have 33,000 miles of coastline. That is a lot of coastline. That is a lot of water. That is tidal energy. That is marine hydrokinetic, if we can harness the power of the Yukon and the Kuskokwim. It is bountiful. We have the biomass potential.

We have, again, pioneered in so many different ways. We want to be able to utilize microgrids, but right now the definition of microgrid says that you have to have the ability to connect and disconnect from your grid. Well, if you do not have a grid in the first place, then you do not count as that.

So we need to work with you, as the incoming Secretary, to make sure that we are not standing in the way, that our own Federal Government is not standing in the way of this innovation that is coming from our national labs, that is coming from the innovators on the ground as we are working to help facilitate this.

We need you to help us cut through a lot of what has been put in place that holds back the innovation, that keep the people in Fairbanks right now that are trying to stay warm and it is costing them a pretty penny to do so, to give them the assurances that they have options.

I look forward to working with you on some of those specifics.

One of the things that we do not have in Alaska, as an all-of-the-above state, we do not have any nuclear. We have a small population. You know that. But the prospect for what small modular nuclear reactors—and Senator Risch almost got to his question here, so I would like to have you address that as you talk about the broader panoply of energy options. But the potential for small, remote communities or whether it is our military installations up there at Eielson, for instance, a good example. Some of our forward operating base outposts. But as Senator Duckworth made the point, and I think appropriately so, reliance on at-risk fuel supplies can be life-threatening. So the potential that we have with micro and small modular reactors, including the more advanced reactors, I think hold great prospect for us. Can you speak to how you view the role for advanced nuclear and small modular reactors?

Mr. PERRY. I am not sure I can do it anymore eloquently than you just have, Madam Chairwoman.

But the point is, those are exactly the types of focus that the Department of Energy should be engaged with, should be funding.

I will share with you that I will help you in any small or other way. If there needs to be legislation that changes Federal laws on the microgrid issue, I will be more than happy to help you do that, because it makes abundant good sense.

Again, this is that old classic of one-size-does-not-fit-all, that it had not really been thought through—it may be a really great idea. My home state happens not to be attached to the Federal grid either, and it works pretty well for us.

But we are a diverse country. We have a lot of different geography. We have different people. We have different regions. And to

thoughtfully put in place energy policies that take into account that diversity is really important.

So you have my commitment not only—I am obviously a very strong supporter of this new technology. We want to look at it from a safety standpoint, we want to look at it from the standpoint of being able to secure it properly, of these small nuclear modular reactors.

But there are places, Senator Duckworth and I had that conversation, that particularly from a military application to power those bases, of which you have a number of in your home state, may be a good starting point on those. And then plug them in, if you will, to the nearby neighborhoods and have that alternative form of energy that can, in fact, make it available and affordable.

The CHAIRMAN. Thank you.

I know we said we were going to a second round, but Senator Sanders has not had an opportunity to ask a question yet, so we will turn to him.

Senator SANDERS. Thank you.

Welcome, Governor.

August 17, 2011, CBS News, “Republican presidential candidate Rick Perry said Wednesday morning that he does not believe in global warming science and suggests that it is grounded in scientists manipulating data for financial gain. He said the climate is changing, but it has been changing ‘ever since the Earth was formed.’ Perry added that, ‘The issue of global warming has been politicized,’ and argued that America should not spend billions of dollars addressing ‘a scientific theory that has not been proven and, from my perspective,’”—Governor Perry’s—“is more and more being put into question.”

That position is at variance with virtually the entire scientific community that has studied climate change. In fact, the scientists that I hear from believe that climate change is the great planetary environmental crisis that we face, and that we need to move forward aggressively to transform our energy system away from fossil fuel to energy efficiency and sustainable energy.

Do you still hold the views that you expressed in 2011, number one? Number two, Governor, do you agree with those scientists that it is absolutely imperative that we transform our energy system away from fossil fuel to energy efficiency, so that we can leave this planet in a way that is healthy and habitable for our kids and future generations?

Mr. PERRY. Senator, I believe the climate is changing. I believe some of it is naturally occurring. I believe some of it is caused by manmade activity. The question is, how do we address it in a thoughtful way that does not compromise economic growth, that, quite frankly, does not affect our energy affordability.

Senator Murkowski talked about the individuals in her state—

Senator SANDERS. Governor, I do not mean to be rude. We just have a short period of time.

Mr. PERRY. No, no.

Senator SANDERS. And I apologize.

But Senator Cantwell made I think an important point on this, and that is we are in danger of spending God knows how many billions of dollars to repair the damage done by climate change.

Drought is becoming a major crisis. It will impact agriculture in a very significant way.

Basically, what I am asking you, let us get beyond the rhetoric, and you do not have to agree with me. The scientists that I talk to, I think the majority of the scientists who study this issue, feel that climate change is a global crisis. It is not a question of balancing this and balancing that. It is a global crisis, which requires massive cuts in carbon and the transformation of our energy system. How do you respond to that?

Mr. PERRY. I like getting past the rhetoric, sir, and getting past the rhetoric is looking at the record.

Senator SANDERS. I know, but—

Mr. PERRY. Yes, sir, but I think it is important for us to talk about the 12th largest economy in the world, while I was the Governor, because you are asking me what am I going to do about economic impact—

Senator SANDERS. I am asking you if you agree with the scientific community that climate change is a crisis and that we need to transform our energy system to protect future generations.

Mr. PERRY. And, Senator, I will respond that I think that having an academic discussion, whether it is with scientists or whether it is with you, it is an interesting exercise.

But do I have a record of affecting the climate in the world and in this country, and the answer is yes. When you lower carbon emissions by 17 percent, and sulfur dioxide by 66 percent, and NO_x by 58 percent, don't you think that is a good thing?

Senator SANDERS. Well, I think what would be a better thing is for you to say right now that you recognize that we have a global crisis, and that the United States of America should help lead the world, working with China, Russia, countries around the world, to transform our energy system.

Let me change subjects to another area. As you mentioned in your opening remarks, more than 60 percent of DOE's budget deals with nuclear energy.

I and I think many Americans were concerned about President-elect Trump's remarks regarding allowing or supporting more countries around the world to get nuclear weapons. The United States under Democratic and Republican Administrations for many, many decades now has been strong in saying that we want not to be testing nuclear weapons. Can you give us some assurance that you are within the mainstream in saying that testing of nuclear weapons is a dangerous idea?

Mr. PERRY. Senator, what I can tell you is I think it is really important for the United States to have a nuclear arsenal that is modern, that is safe. At this particular point in time, I think if we had General Klotz here, he would tell you that that is probably the case, that he is comfortable—

Senator SANDERS. The question was dealing with nuclear testing.

Mr. PERRY. Yes, sir.

Senator SANDERS. Will you support the ban on nuclear testing?

Mr. PERRY. That is where I was getting to, is that, obviously, the scientists that we have at the DOE, the scientists in the private sector, I am going to rely upon their observations of whether there is clear technical ability to use the technology that we have today.

I think anyone would be of the opinion that if we do not ever have to test another nuclear weapon, that would be a good thing, not just for the United States but for the world.

Senator SANDERS. Thank you.

The CHAIRMAN. Thank you.

Senator Lee.

Senator LEE. Thank you, Madam Secretary.

Thanks so much, Governor Perry, for being with us.

Mr. PERRY. Yes, sir.

Senator LEE. Thanks for your willingness to be considered for this position.

I wanted to talk to you about a couple things that relate to the Department that you will be heading, if you are confirmed. One of them relates to uranium, something that Senator Barrasso mentioned a little bit earlier.

I always worry whenever government gets involved in any marketplace, especially if it gets involved and distorts the marketplace. In some instances, it gets involved in a way that picks winners and losers, often favoring large, wealthy corporations over newer startups that by their very nature tend to have a harder time gaining access to capital, whether it is from government or private sector sources. In other instances, government gets involved and occupies a market, takes over the whole market.

One of those areas relates to the Department of Energy's Excess Uranium Inventory Management Plan. The USEC Privatization Act prohibits the Department of Energy from selling or transferring excess uranium if the sale or transfer will harm the domestic uranium industry. You can understand why that policy might be in place. It is an industry that, if destroyed, especially if destroyed by government action, might cause us harm down the road when government resources, government stockpiles, dry up.

Yet, between 2009 and 2011, the Department of Energy transferred more uranium than it was allowed to transfer under the 2008 plan. Then in 2012, the GAO found that the Department of Energy violated Federal law when it received no compensation for a very large transfer of uranium, which cost taxpayers nearly \$200 million. Furthermore, the Department of Energy's 2013 Excess Uranium Inventory Management Plan eliminated all annual caps on the transfer of excess uranium. This has introduced a tremendous amount of uncertainty and hazard within the domestic uranium industry.

If you are confirmed to this position, you are going to have the opportunity, after being confirmed, to update the Department of Energy's management plan with regard to excess uranium. Can you assure us that your plan will take into account the existence of a commercial domestic uranium market, and one that honors the market, and then stick to the plan thereafter?

Mr. PERRY. Senator Lee, thank you.

You and Senator Barrasso both helped me to understand this issue substantially better than before I came into your offices, and I thank you for that. As I further come up to speed, if you will, knowledgeable of it—but a broad look at this, you correctly identify this as a budgetary management issue at the Department of Energy.

Again, I just like to remind folks that for 14 years, I delivered a budget to the Texas Legislature. We negotiated those budgets. We prioritized. That is my commitment to you, Senator, is to manage this agency understanding how the budgetary process works, working with the OMB, working with members of this committee, the Finance Committee, to find the dollars to accomplish the goals that we have at the Department of Energy, this obviously being one.

The law clearly states that this does not, cannot, should not happen—

Senator LEE. Thank you.

Mr. PERRY [continuing]. To manipulate the uranium supplies where it has a negative effect. I will follow the laws of this country.

Senator LEE. Thank you. I appreciate that.

I have a few seconds left, and I want to get out one more point.

The Nuclear Waste Policy Act creates an obligation, an obligation that is statutory and contractual. It obligates the Department of Energy to dispose of spent nuclear fuel.

Currently, we have about 75,000 tons of nuclear waste stored at onsite facilities across the country. The Department of Energy started developing a waste disposal site at Yucca Mountain that was halted by the Obama Administration in 2010. In the meantime, the government's breach in this regard, its failure to finish this and provide disposal options at Yucca, has cost taxpayers \$5.3 billion in damages, and those damages could mount up to \$23 billion, \$24 billion in the next few years. I would like to know what you plan to do about that and to move forward with Yucca.

Mr. PERRY. Senator, you know, not addressing the issue of Yucca directly, I want to ask for the privilege to really come up to speed from the standpoint of both the DOE and the legal aspects of this.

I have a history, as I said to this committee earlier, of solving problems, of being a manager and looking at some alternatives maybe outside of what we have historically looked at before.

My commitment is, and my hope is, we have as a legacy of us, this committee, this Congress, this Administration, for Americans, that we finally, after 30 years of kicking the can down the road for whatever reason, but start seeing clear, definitive evidence of addressing this issue and moving to temporary and/or permanent siting of this nuclear waste.

Senator LEE. Thank you.

Thank you, Madam Chair.

The CHAIRMAN. Senator Cantwell.

Senator CANTWELL. Thank you, Madam Chair. Governor Perry, I wanted to talk about Hanford, and thank you for mentioning it in your statement. Obviously, you know a little bit now about the history of the Hanford site, and its production of plutonium, and the history it has had for our nation.

Obviously we now want to see a commitment, as we asked every Energy Secretary, to cleaning up the site and to moving forward on waste treatment plant construction. Are you committed to funding Hanford cleanup no matter what it takes and to getting the waste treatment plant finished?

Mr. PERRY. Senator, I am committed to working with you and prioritizing what is one of the most dangerous, most polluted sites

that we have in this country. The commitment that this country makes, not me singularly, not the DOE singularly. The country's commitment to do this has been a failure, from my perspective, and I will work with you on a very, very diligent basis up to and including coming to Hanford and walking that site with you, sitting down with the men and women of the labor unions that are there to hear their concerns, and so that they know that there is a Secretary of Energy, that there is an Administration that is committed to making true movement on what I consider to be one of the real failures that this country has had dealing with our nuclear waste.

Senator CANTWELL. Well, it is definitely a very complex problem.

Mr. PERRY. Indeed.

Senator CANTWELL. Thank you for recognizing the fact that it is arguably one of the most technically challenging cleanup projects in the world. Will you work with the state on the Tri-Party Agreement, which is between the Federal Government and the State, on the cleanup of the Hanford Site?

Mr. PERRY. Senator, one of my goals, and I hope one of my strong suits, is going to be to reach out to governors, reach out to members of the legislature who have had these challenges, obviously working with this committee to find the collaborations. And it is going to take a collaboration. We understand that. This is going to be the private sector, it is going to be the state, it is going to be the Federal Government working together to make this happen, and doing it in as streamlined and efficient way as we can. You have my commitment, yes, ma'am.

Senator CANTWELL. Thank you. And on this larger issue, because the committee dealt with nuclear waste conversations in the last Congress—in fact, Secretary Moniz just published an article yesterday in Bloomberg reiterating the various points of what has happened on this issue. Two of those I wanted to get your comment on.

First of all, the Blue Ribbon Commission (BRC) on the future of America's nuclear waste was formed. Our former chair, Senator Domenici, and many of our other colleagues spent time on this issue. Basically it said one of the ideas would be to separate defense waste from commercial waste because you might be able to get it done in a more rapid time period. Secondly, the BRC advocated a consent-based process—the notion that we have spent time and money trying to do something that there are great objections to that stymied the process. The Commission advocated a process where states and those who would be holding material would come to agreement in a consensus fashion. Do you support that concept of the Blue Ribbon Commission recommendations?

Mr. PERRY. Senator, until I have the opportunity to sit and truly go over it, I think it would be a bit unfair for me to tell you absolutely without having read it at length. But as a general rule and a general observation of what you have talked about, working with the states, having been in public service now for 30-plus years, finding consensus is what I did. It makes ultimate good sense to do that, understanding that from time to time, you know, sometimes consensus just has not—it is really hard to reach. I know the complexities of this issue relatively well, not as well as I will as we go forward.

Senator CANTWELL. Well, yes, the Environmental Management Mission is a very big part of the budget—as I mentioned, 20 percent—and the Hanford site accounts for about a third of that total. So, I think, notwithstanding the comments of my colleague from Utah, I think the committee, and at least the Senate approach, has been with our colleague, Senator Alexander from Tennessee, and our colleague from California. The legislation they have endorsed as appropriators has been to say: let us look at the discussions with states, whether it is New Mexico, or whether it is Texas, who are on their way planning various activities for low-level waste. But is there a faster way to get solutions—to remediate these sites and find a permanent disposal site?

The Blue Ribbon Commission was a bipartisan group of experts—Brent Scowcroft, Lee Hamilton, and a whole variety of people, who made these recommendations.

Mr. PERRY. Senator, I will be open to having those conversations and finding the solutions to the challenges.

Senator CANTWELL. And one last easy one. I know you have that “do not mess with Texas” kind of attitude when it comes to the grid. Will you make sure that BPA is protected and not privatized?

Mr. PERRY. You and I—you and I have had that conversation that—

Senator CANTWELL. Our grid is—

Mr. PERRY [continuing]. Again, I really look forward to coming out there, not just to see Hanford, but also the Bonneville Power Agency and what they doing—

Senator CANTWELL. The lab.

Mr. PERRY [continuing]. And talking to—yes.

Senator CANTWELL. Yes. I am sorry, one thing I wanted to say about Hanford. You also support—this was a long conversation—the workers and making sure that the workers are safe during the cleanup of Hanford waste?

Mr. PERRY. That may be one of our most important duties—making sure that those men and women who are working on a very dangerous site have the appropriate protection that they deserve and they have earned.

Senator CANTWELL. Thank you.

The CHAIRMAN. Thank you.

Senator Heinrich.

Senator HEINRICH. Governor, I want to follow up on some of the conversation you have had working with Senator Cantwell on clean up. You are inheriting the cleanup of the legacy of waste from the entire Cold War. At Los Alamos, for example, it will take about \$4 billion over the next few decades to finish that effort. That effort is not as technically complicated, I think, as the Hanford site, but it requires resources.

I think if the budget is flat, you will have your hands full on this front. But we have heard about a potential hiring freeze. I have an article this morning from The Hill talking about rolling substantial portions of the DOE budget back to 2008 levels. And this is a Trump transition team article. How are you going to meet DOE’s commitments to states like New Mexico, to states like Washington, who have consent agreements on these cleanup efforts if we have a dramatically smaller DOE budget?

Mr. PERRY. Yes, sir. Senator, over the 14 years—actually, I will even expand it a little bit. Over the 30 years that I was either a State Representative, an appropriator, I was an agency head for eight years, and then I was the Governor 14 years—a little bit light gov in there as well—we had budgets that did this. They went up and they went down. We had some really tough budgets in the State of Texas in 1985 and 1987, in particular. I was an appropriator during that period of time. As an agency head, I got to deal with what I was given. I obviously went over and negotiated as good and as hard as I could. Then as the Governor of the state, it was not blue skies and smooth sailing. In 2003, we showed up with a \$10 billion budget shortfall in our state. So, I have had this experience of dealing with budget shortfalls. I have obviously been blessed with some times when we had—I am not sure I ever ran into a time when somebody said you get all the money you ever need, but my history is I know how to manage. I know how to prioritize.

I will make a commitment to you, Senator, that managing and prioritizing that budget inside the Agency will be very high for me. I hope it gives some comfort that this is not my first rodeo when it comes to dealing with budget shortfalls.

Senator HEINRICH. Related to that, Governor, and I want to thank you for your comments on that, I also want to ask you about the Waste Isolation Pilot Plant, the WIPP facility, in Carlsbad, New Mexico. You may know that WIPP is the nation's only deep geologic repository for transuranic waste from the weapons program, and it is a very important part of the cleanup effort. WIPP was closed for nearly three years as a result of two serious accidents. We just reopened it this last month. The investigations into those incidents cited lack of proper management and oversight as one of the root causes.

I want to ask you to assure me, but more importantly, to assure the people of New Mexico, that the safe operation and proper maintenance of WIPP will be a budget priority and also a management priority.

Mr. PERRY. Senator, I hope, again, that my history of managing a rather large entity, and I am not going to sit here in front of you and tell you we got everything right every day in the State of Texas. But by and large, it was a very well-managed place. When there were mistakes made, I held people accountable because the people of the state of Texas were holding me accountable.

I consider my accountability not only to be to this Administration, to this committee, to this Congress, but also to the people of this country and to the people of your state. I want my neighbors in New Mexico or our farmer neighbors in New Mexico to know that there is a Secretary of Energy who not only will come to that site and to hear their concerns, whether they are employees of WIPP or whether they are people who live around the communities there, that every reasonable, every thoughtful effort will be made to make sure that not only does that site stay open because of the powerful economic impact that it has on your state, but also that the people who work there are going to be safe. You have got my commitment to that, sir.

Senator HEINRICH. That is exactly what I want to hear. I very much appreciate your willingness to spend the first few months of your tenure getting to places like the Labs and the WIPP facility. I think that means a great deal to the community.

Mr. PERRY. Yes, sir.

Senator HEINRICH. Thank you, Governor.

The CHAIRMAN. Thank you. I think as with the nominee that we had for Secretary of the Interior, these folks are going to be doing a lot of traveling in the first six months, which we appreciate.

Mr. PERRY. Yes, ma'am.

The CHAIRMAN. We appreciate it.

Senator Cortez Masto.

Senator CORTEZ MASTO. Thank you, Governor. I know in our meeting, you committed to coming to Nevada as well, so I appreciate that.

Staying on the line of questioning here because you are going to have a lot on your plate when it comes to the cleanup and disposal of high-level and low-level nuclear waste. One of the DOE sites for cleanup is the Nevada National Security site, which was established in 1950 to perform nuclear weapons testing activities. There are right now three main areas of focus for the DOE for cleanup on that site, which is groundwater contamination cleanup, low-level radioactive waste disposal cleanup, and environmental monitoring and reporting. I just want to know are you committed to continuing the cleanup of the Nevada National Security site?

Mr. PERRY. Of course, Senator. As I shared with Governor Sandoval and Senator Heller, you know, I hope we can—again, as the Chairman mentioned, I am going to be traveling a lot, and I hope that I can, and I will not be coming to Nevada just to see my daughter, I might do that as an aside.

Senator CORTEZ MASTO. Thank you, Governor.

Mr. PERRY. But we will be there to go to that site to take a good appraisal of it and continue to prioritize these cleanups. I think everyone on the committee will agree that one of the main priorities, obviously keeping that arsenal safe, modernizing that arsenal, but prioritizing the funding and managing that funding in an appropriate way to clean up these waste sites is going to be very, very high on the priority list.

Senator CORTEZ MASTO. Thank you, Governor. Based on the conversation and what I am hearing recently, I am going to try one more time. Do you support storing nuclear waste at Yucca Mountain?

Mr. PERRY. Senator, I am not going to have a definitive answer, you know. Absolutely no way in hell—I heard that from Senator Heller, Governor Sandoval, and you pretty loud and clear. But I think what you need to hear from me is I am going to be looking at the alternative ways to be able to address this issue. We have not for 30 years been able to address it, and if there are legitimate alternatives that keep the people of Nevada happy, well, that is even better.

But I will not sit here in front of you in a committee hearing and tell you absolutely no way is Nevada going to be the recipient of any high-level waste. But what I will tell you is that we will work with you every day. As I think a number of the other senators have

said, there are some other places in this country that are willing to have this conversation, and I think we need to have an open conversation.

I was for bringing high-level waste into the State of Texas while I was the Governor. I seemed to manage to get reelected every time I ran. So, the issue is one that if we are wise, if we are thoughtful, if we are respectful, that we use good science, we can find a solution to this, Senator.

Senator CORTEZ MASTO. Thank you. Another reason why I would love for you to come to Nevada, most people do not realize, there are 29 operating geothermal power plants in Nevada right now, employing potentially 6,375 individuals both directly and indirectly with jobs. We have been able to do so and create these job-producing clean energy power plants with the support of DOE's Geothermal Technologies Office. What I would like to know is will you commit to pushing for adequate funding for the Geothermal Technology Office to continue researching geothermal energy innovations?

Mr. PERRY. All-of-the-above, Senator. I think, you know, "all-of-the-above" means "all-of-the-above."

Senator CORTEZ MASTO. So, that is a yes.

Mr. PERRY. Where you and I will probably have more pointed conversation is "adequate," the word "adequate." As I shared in my remarks earlier, prioritization and good management of budgets can go a long way.

Senator CORTEZ MASTO. Good. There is another project that is on the horizon called the FORGE Lab Project, and Fallon is a potential host for it. I would ask for your commitment and support in considering that as well, continuing to support those types of projects.

Mr. PERRY. As I have become more knowledgeable of that operation there. My son-in-law has been at Fallon a few times, so he can easily point it out to me.

Senator CORTEZ MASTO. Thank you, Governor.

The CHAIRMAN. Thank you. Senator Franken.

Senator FRANKEN. Thank you. Governor, as you know, two-thirds of the Department of Energy budget is dedicated toward our nuclear weapons program. Now, the United States already has the world's most formidable nuclear arsenal. We currently maintain a force of approximately 4,000 nuclear weapons, a number that is much bigger than we need to maintain an effective deterrent. Yet we are on track to spend more than \$1 trillion over the next three decades to sustain, replace, and refurbish delivery systems, warheads, and their supporting infrastructure.

This plan was launched in a different budget era, and I can tell you that numerous very distinguished national security experts believe that this investment will significantly hamper the ability of the United States to respond to conventional and unconventional threats that we may face. If you are confirmed, would you be open to altering the pace and scope of the current modernization plans if it is clear that significant taxpayer savings can be achieved while still meeting the deterrent requirements?

Mr. PERRY. Senator, I will address your remarks by saying that I understand my role as being the Secretary of Energy of being the

manager of that agency. From my perspective, the issues that you bring forward, which are legitimate issues for us to talk about as a country, but those will lie in your purview and the Congress making the decisions, I would suggest, relative to the numbers, partly by the funding stream and what have you. So, I will be following the statutes and the laws that the United States Congress put in place relative to those issues.

Senator FRANKEN. Well, you may have influence in this debate, so just let me alert you to this. These are weapons we are never going to use, we hope, and \$1 trillion over 30 years—

Mr. PERRY. Yes, sir, real money.

Senator FRANKEN. Yes. While we are on the topic of nuclear weapons, I want to turn to the Iran deal. As you know, your predecessor, Dr. Moniz, played a key part in negotiating the Iran deal and its nuclear limits, which have blocked Iran's potential to amass nuclear material for a nuclear weapon.

In a January 2nd, 2017 letter to President-elect Trump, 37 of the nation's top scientists wrote that, "In sum, the JCPOA has dramatically reduced the risk that Iran could suddenly produce significant quantities of nuclear weapons material." They concluded that their "technical judgment is that the multilateral JCPOA provides a strong bulwark against an Iranian nuclear weapons program," and urged Trump "to preserve this critical U.S. strategic asset."

Specifically, as a result of the Iran deal, Iran's uranium stockpile was cut by 97 percent to 300 kilograms, a fraction of the amount needed for a single nuclear weapon, with further enrichment. Iran reduced its installed centrifuges by two-thirds. Iran's nuclear enrichment level is now capped at 3.67 percent, way below weapons grade. The core of the Iraq reactor was destroyed, and Iran will redesign the facility so that it will not produce weapons grade plutonium.

Given the nonproliferation benefits of the JCPOA, as Secretary of Energy, I hope that you will make a real effort to talk to the people in our national security community who support the deal. I hope you will speak with the Israeli military and intelligence community because I think they will tell you that this is not just in American national interest, but also in the interest of Israeli national security. I would urge you to advise the President-elect to not get out of this deal. I think that would be bad for a country. The other P5+1 countries are going to be staying in it anyway. As Energy Secretary you will have the President's ear on this, so I just want to make a pitch to you—

Mr. PERRY. Yes, sir.

Senator FRANKEN [continuing]. To keep us in the Iran deal.

Mr. PERRY. Yes, sir. Just as a response, sir, I think nonproliferation is a good thing. In a general sense, I have not had a classified briefing yet. Until I am confirmed, and I certainly would ask each of you for your support on that, but until I am confirmed, and I have not had that classified briefing, I am not going to be as knowledgeable about this Iranian deal with specificity.

But to say that if DOE has a role, and there may be a role that we have to play, and, again, I have not had that classified briefing, to make sure that the Iranians are living up to it, I think all of

us can say that we want the Iranians to live up to the deal. And so, message delivered, sir.

Senator FRANKEN. Thank you. Thank you, Governor.

The CHAIRMAN. Senator King.

Senator KING. Thank you. On that point, I appreciate your comments, and I think one of the important roles that the Department of Energy has is monitoring and working with the intelligence agencies to be sure that Iran is living up to the deal. I know that is a very important responsibility. In terms of the arrangement itself, I view it as the fact that Iran has gotten their benefits from the deal, which were the release of the sanctions. Now the burdens, which are a 10-year or longer tamping down of their centrifuges, enrichment, and all of that, we would only be hurting ourselves if we terminated the deal because they would have gotten what they wanted, and then we would have released them from the restrictions of the agreement.

Two things, very short, and all you need to do is say “yes” twice. [Laughter.]

One of them is, as all of my colleagues have——

Mr. PERRY. Sounds like a wedding.

Senator KING. Yes, exactly. [Laughter.]

In your case, it appears to have worked out beautifully.

Mr. PERRY. It sure did.

Senator KING. Is to invite you to Maine, particularly the University of Maine. Our university has a relationship, as you mentioned—you talked about Texas Tech—to the Department of Energy labs, particularly Oak Ridge. In fact, Senator Collins and I are going to be there next week, a week from tomorrow, with people from Oak Ridge. It is an amazing engineering school and engineering facility. Offshore wind, testing facility, nanotechnology, 3D printing. I think you would find it very illuminating. We would love to have you come up.

Mr. PERRY. Yes, sir.

Senator KING. If you want to come in more, like, June or July than February, I will accept that.

Mr. PERRY. Yes, sir. Thank you. Yes, sir. I will be there, Senator.

Senator KING. That was the right answer. The second—the issue, I just want to commend to you, we have talked a lot today about energy sources. One of the most interesting developments in energy in the last few years is what is called distributed energy, which is homes making their own energy, storage, demand response, energy efficiency. By the way, the cheapest, cleanest kilowatt hour of all is the one we do not use. And so, there is enormous potential there.

The Department has been doing research, and I just hope you will continue to pay attention to that as part of the all-of-the-above strategy includes distributed energy and energy that is produced at the homeowner level or at the factory level, but also things like efficiency, storage, demand response.

Mr. PERRY. Yes, sir. Senator, when you talk about the connectivity issue and the distributive issue, are you talking about issues like smart meters?

Senator KING. Exactly.

Mr. PERRY. Yes, sir.

Senator KING. Enormous potential there.

Mr. PERRY. Yes, sir. We had a program in my home state of which we helped fund and gave incentives to the installation of those, and it has been quite successful from my memory. Those are the types of thoughtful engagement, the type, frankly, of investments that I have historically been very supportive of.

Senator KING. Thank you. Thank you, Madam Chair.

The CHAIRMAN. Thank you.

Senator KING. Thank you very much, Governor, by the way—

Mr. PERRY. Yes, sir.

Senator KING [continuing]. For your testimony and patience—

Mr. PERRY. Thank you, Governor.

Senator KING [continuing]. Over a long morning. Thank you.

The CHAIRMAN. Thank you, and we do appreciate your endurance, your patience. We were just visiting here about how long these nominations hearings go, but they are longest for those sitting on that side of the table.

Mr. PERRY. Yeah.

Senator KING. And we appreciate it.

Mr. PERRY. You are welcome.

The CHAIRMAN. I have no further questions. Senator Cantwell had a clarification that she wanted to make. Senator Cantwell.

Senator CANTWELL. Thank you. I am going to file a couple of questions for the record—

Mr. PERRY. Sure.

Senator CANTWELL [continuing]. On smart buildings and energy efficiency. These have been very, very successful programs that have saved millions of dollars for those who own the building facilities and for homeowners. We definitely want to get some responses on that.

But I was out while you were speaking with Senator Stabenow. I was running back and forth between the Treasury nominee hearing and this hearing. I think you gave her a commitment on funding the Office of Electricity, but I just want to make sure, given all the discussion we have had this morning and in the press, that you understand that office's capabilities on storage, on cyber, on transforming the grid, on all of those things, and are committed to that office.

Mr. PERRY. The most important aspects of the Agency, Senator, cyber. I think—I hope I have made a deep impact on the committee about finding the solutions, particularly on the cyber side. There is some work that we are going to be able to do on the supercomputing side as well, so—

Senator CANTWELL. The Office of Electricity you support wholeheartedly, I guess?

Mr. PERRY. You know, whatever the name of the committee or—excuse me—the name of the agency needs to be. Sometimes there is renaming, and I do not intend to do that off the top of my head. But to those—to those functions that are under that agency today, there is great support in general for that. As we dive into this agency more, obviously working with your office and the rest of the committee, I look forward to lots of successes.

Senator, if I might, just thank you for the opportunity to be here. You said something about the length of these things, but this is important work, and this is important business, and this is an impor-

tant agency. If I am so fortunate as to be confirmed, I hope I get the support of each and every one of these senators as we go forward.

I am committed to working with you, to being a partner in this process, and to truly making America being an energy independent place that has an extraordinary future for our children, for our country, for our environment, and, in turn, the world.

The CHAIRMAN. Well said. We thank you, Governor Perry. We appreciate, again, the time that you have given us today, the testimony that you have placed before the record, your willingness to answer the questions of virtually every member on the committee. I think we only had two members that were not able to be in attendance today.

We will allow for questions to be submitted for the record. That deadline for committee members is close of business today. We would certainly encourage submission prior to that if at all possible.

I will also ask unanimous consent to submit several letters of support for Governor Perry for the record of this hearing. I would ask that members submit any of their own to our Chief Clerk, Darla Ripchensky.

Again, Governor, thank you. I would also like to thank your family that has been there, not only supporting you behind you in this hearing, but as they have supported you throughout your professional career and the leadership that you have provided to the people of the State of Texas, and now your willingness to step forward.

I also want to acknowledge the sacrifice and the service of Mr. Luttrell. We appreciate that. We certainly honor you and all those who have served.

With that, again, thank you, and the committee stands adjourned.

Mr. PERRY. Thank you, Senator.

[Whereupon, at 1:01 p.m., the hearing was adjourned.]

APPENDIX MATERIAL SUBMITTED

U.S. Senate Committee on Energy and Natural Resources
January 19, 2017
Department of Energy Secretary Nomination Hearing:
Responses to Questions for the Record

Chairwoman Lisa Murkowski

1. In May 2015, the Department of Energy granted a conditional authorization for the Alaska gasline to export LNG to countries that do not have a free trade agreement with the United States. This was a major milestone in our efforts to build the gasline, which will result in tens of billions of dollars' worth of investment, create thousands of new jobs, and boost the economic growth of our entire nation.

a. If you are confirmed as Secretary of Energy, will you support Alaska's efforts to market its stranded gas?

b. In principle and as a policy matter – without asking you to pre-judge any specific application – do you support a natural gas pipeline and export facility in Alaska?

As I testified at the hearing, I support an “all of the above” energy strategy because it will create thousands of jobs and boost economic growth. I also support exports of LNG. If confirmed, I will explore the inclusion of Alaska’s efforts to market its stranded gas and a natural gas pipeline and export facility in Alaska as part of “an all of the above” energy strategy. I will discuss these two issues further with you, and learn more about them when I travel with you to Alaska.

2. Will you make it a priority of the Department of Energy to provide prime contracting opportunities for small businesses?

Yes. As governor of Texas, I was a strong proponent of small businesses and will continue that support if I am confirmed as Secretary of Energy. I believe we should support small businesses to the extent it is consistent with the Department’s obligation to get the best value for the taxpayers and the highest quality products and services to advance our mission.

3. The Office of Indian Energy is designed to help facilitate energy development on Native lands, including Alaska Native lands. We care about this office in Alaska because it offers genuine promise in helping to identify solutions that can reduce our high rural energy costs.

a. Do you support the continuation of this Office?

b. Can you speak, generally, about how you would approach energy development on Native lands, in Alaska and throughout the Lower 48, if you are confirmed as Secretary?

c. Given the scope of the rest of the Department, do you believe this Office should be limited to technical assistance, or should it be allowed to help Native communities actually build projects that will lower their energy costs?

a. At the hearing, you spoke eloquently about the impact that high energy prices have on Alaskan Natives. If confirmed, I will evaluate the Office of Indian Energy for its potential to provide innovative solutions to facilitate energy development and reduce high rural energy costs.

b. I support an “all of the above” energy strategy. If I am confirmed, I look forward to working with you, the committee, the Interior Department and tribal leaders on developing an overall strategy for energy development on Native lands in Alaska and the lower 48 states. .

c. If I am confirmed, I would look forward to being briefed on the capabilities and charter of this office. I understand that more than 175 remote Alaska villages rely on very expensive sources of energy for electricity and heat, and I look forward to hearing about lower-cost solutions to their energy needs, and determining if they can be implemented.

Senator John Barrasso

4. The Experimental Program to Stimulate Competitive Research, (“EPSCoR”), is a program within the DOE’s Office of Science. This program is designed to improve energy-related research in 24 largely rural states, including the state of Wyoming. DOE needs to continue to build basic research capacity in EPSCoR states.

If confirmed, would you support increasing funding for the EPSCoR program?

If confirmed, I look forward to learning more about the EPSCoR program and how it can better serve America’s rural communities. As I testified at my confirmation hearing, I am an advocate for basic research. I believe the Department of Energy has an important role in supporting research and bringing new technologies to this country.

5. States, such as Wyoming and Alaska, have had minimal representation on DOE’s major advisory boards. I understand, for example, that the Secretary of Energy Advisory Board has not included anyone from an EPSCoR (ep-score) state during the Obama administration. I find this troubling.

DOE’s advisory boards play an important role in helping set DOE’s policies and priorities. And most of our top energy-producing states, including Wyoming, Alaska, West Virginia, and North Dakota, are EPSCoR states.

What steps will you take to ensure that Wyoming and other EPSCoR states are able to participate on DOE’s major advisory boards?

If I am confirmed, it is my intention to review each of these boards in terms of their mission and make up. It is my intention to determine whether EPSCoR states are appropriately represented. Should I be confirmed, I would consider it an important part of my role to have good working relationships with all governors; appointing them and/or their designees would help accomplish this goal.

6. One of the problems that I believe the Department of Energy has created over the years is its failure to effectively communicate with the general public what it is that they do, particularly in the area of energy research. This failure has most likely resulted in missed opportunities to further important research and raises legitimate questions by the public regarding the need for and the effectiveness of the Department.

In 2015, the DOE established the Office of Technology Transfers to reverse this glaring operational weakness. The OTT is tasked with establishing the smooth technology transition from DOE to other partners. For DOE to continue as a viable operation, it must insure that its research is used to improve the lives of all Americans. It is incumbent upon the agency to continue to engage the private sector, not only after research has been completed, but when the research is occurring to create every opportunity of success and to achieve great things for people.

Will you commit to supporting the Office of Technology Transition's efforts, and to improve outreach to and collaboration with America's researchers and innovators?

I have not been fully briefed on the Office of Technology but can commit to learning more about it. If I am confirmed, I will explore ways to make technology development at DOE available to interested parties. I believe in engaging with the private sector. While being careful not to duplicate private sector efforts, the Department can be a great resource in cooperating with the private sector to spur innovation, particularly by investing in cutting-edge research.

Senator Cory Gardner

7. Energy savings performance contracts (ESPCs) and utility energy service contracts (UESCs) are tools that save taxpayer dollars by leveraging private company resources to make energy upgrades to federal buildings and lower energy costs.

These contracts assist with upgrading our federal facilities outside of the appropriations process and utilize private dollars to make energy efficiency upgrades.

A bipartisan consensus in Congress exists for the federal government to do more in this area. The Obama Administration announced a completion of over \$4 billion in value in its ESPC goal in December 2016.

What is your opinion on leveraging the private sector to continue delivering taxpayer and energy savings to the federal government?

Allowing the private sector to deliver benefits to the taxpayer is something we should always strive for. If confirmed, I will learn more about ESPCs, and their ability to provide value, deliver benefits and save taxpayers' money. As part of that evaluation process, I will welcome your detailed views.

Senator Rob Portman

8. In 2012, Congress passed the American Medical Isotope Production Act (AMIPA), with the goal of bringing domestic production of medical isotopes online as early as 2013. To date, none of the projects have come online and a number have been cancelled. We are now facing shut-downs of international facilities which will threaten the ability for our doctors to carry out 50,000 life-saving diagnostic tests every day in the United States, equaling 20,000,000 procedures a year involved in the early detection of heart disease, cancer, and dementia, among other illnesses.

A 2016 report issued by the National Academies of Sciences, Engineering and Medicine stated that: "Although the current supply of molybdenum-99 and technetium-99m - isotopes used worldwide in medical diagnostic imaging is sufficient to meet domestic and global demand, changes to the supply chain before year-end could lead to severe shortages and impact the delivery of medical care....The capacity to supply molybdenum-99 will be reduced substantially when the reactor in Canada stops production at the end of October 2016. Canada will then become a supplier of last resort - producing molybdenum-99 only in case of severe global shortages - until its reactor shuts down permanently at the end of March 2018."

According to a 2015 Report by the Nuclear Science Advisory Committee, Moly99 Subcommittee, there is no domestic production of medical isotopes despite the fact that the U.S. makes up 50% of world demand. Given the lack of domestic supply, and the impending shortage American medical professionals will face, are you committed to following through with the goals of AMIPA and establishing a domestic supply source?

While I have not been fully briefed on the issue, I agree that ensuring access to medical isotopes is critical for our nation. If confirmed, I will direct appropriate staff to review the studies your questions mention and schedule a briefing on this issue so next steps can be identified.

9. In order to increase domestic production of medical isotopes without the use of weapons grade, highly enriched uranium, AMIPA requires that project costs with non-federal partners be cost-shared through the NNSA up to 50% as set forth in the Section 988 of the Energy Policy Act of 2005. In the past administration, DOE and NNSA did not make available the full portion of the 50% cost-share by imposing a \$25 million cap on eligible projects, despite report language included in the FY 2016 Consolidated Appropriations Act (H.R. 2029) reminding NNSA to "fund eligible projects up to the full portion of the 50% cost-share of construction as allowed under AMIPA". This has prevented innovative projects from moving forward, as the arbitrary gap is preventing private investment. Are you willing to closely examine the cap put in place by NNSA?

I appreciated discussing this issue with you, and I am committed to looking into the issue. I cannot provide a full commitment to you until I have received a detailed briefing.

Ranking Member Maria Cantwell

10. Investments in workforce training are going to be essential if we are going to meet the demand for skilled energy workers. The first installment of the Quadrennial Energy Review projected that the energy sector will need to fill 1.5 million new energy jobs by 2030.

Energy innovation is happening at a rapid rate and we need a workforce that can keep up. What would you do as Energy Secretary to address the skill gaps in our energy workforce?

I agree with you that we need to equip our workforce with what they need to succeed. If confirmed, I will ask my staff to review the Quadrennial Energy Review and other information that discusses the skill gaps in the energy workforce and recommend to me what action is needed.

11. I am very concerned that oil transported by rail may have a higher vapor pressure than oil transported by pipeline and it could affect combustibility. North Dakota recently established a vapor pressure limit for Bakken crude transported by rail, but the standard was not based on sufficient science.

The Department of Energy and the Pipeline and Hazardous Materials Safety Administration (PHMSA) within the Transportation Department, are currently conducting a joint study to understand the properties of crude oil that affect combustion. The study is due by the end of this year.

Do you commit to ensuring that the joint DOE-PHMSA study will be completed as soon as possible and that you will prioritize all necessary follow-on studies, to ensure that the public is adequately protected from potential crude-by-rail accidents?

I share your desire for the safety of the American people and to protect the public from potential crude-by-rail accidents. I commit to learning about the joint DOE-DOT study, its timetable for completion, and how it should inform future rule-making on this issue.

12. Do you agree that it's critical to use the Department of Energy's capabilities to help building owners make retrofit and construction choices that employ smart technologies to make dramatic reductions in building energy consumption? Does the Department's work in making our buildings smarter and more energy efficient have your support? Do you support DOE's role in providing technical assistance and model energy building codes for states to adopt as they see fit?

If confirmed, I will commit to learning about DOE's work in this important area. In general, I believe that DOE can provide constructive information about energy efficiency building technologies to building owners and to the states so that states and local governments use that information to help address their needs.

13. In August I chaired an Energy and Natural Resources Committee field hearing in Seattle on the Department of Energy's emergency response capabilities. Secretary Moniz at the hearing released recommendations associated with the Department's Clear Path IV exercise which examined potential government responses to a strong earthquake and tsunami in the Cascadia Subduction Zone in the Pacific Northwest.

The exercise and the Department's recommendations suggest that during natural disasters DOE and other Federal agencies need to better coordinate with state local agencies and the private sector to restore energy services more quickly and save lives in the process.

You faced your share of natural disasters while Governor of Texas. As Secretary of Energy will you work with the Department, other federal agencies, and the states to ensure the Department has the tools and training needed to respond to large natural disasters and restore critical energy infrastructure as quickly as possible?

Yes. As Governor of Texas, I have extensive experience in preparing for natural disasters. If confirmed, I will make it a priority to assess the Department's ability to respond to large natural disasters and restore critical energy infrastructure.

14. During your presidential campaign you criticized the Department of Energy loan guarantee program, and the Solyndra project in particular. But, in Texas you created a similar fund to invest in emerging technologies with a success rate not nearly as high as the federal program. In fact the federal loan program's default rate is significantly less than the default rate of conventional lenders.

Given your experience with state investment funds, how will you in your capacity as Secretary ensure that these loan and investment programs continue to function effectively?

I am proud of my record in Texas supporting emerging technologies. If confirmed, I commit to reviewing the loan guarantee program and evaluate its successes and failures. I am committed to both investing in energy innovation and using taxpayer dollars responsibly.

15. What can you do to expand these programs to make sure that the United States remains a leader in cutting edge energy technology?

Until I am more fully briefed, I cannot say whether these programs should be expanded. I share your commitment to ensuring that the U.S. is a leader in cutting edge energy technology.

16. Modernizing the Columbia River Treaty is of critical importance to Washington State, the Pacific Northwest, and the Country. Tribes, power companies, environmental interests, transportation and agriculture interests, the fishing industry, counties, and towns are all intently focused on how and when the treaty will be modernized, which is administered by the Department of Energy's Bonneville Power Administration and the US Army Corps of Engineers.

Will you commit the Department of Energy to help expedite the negotiations with Canada should you be confirmed as Energy Secretary?

If I am confirmed, I look forward to learning more about the Department of Energy's role in the Columbia River Treaty.

17. Can you ensure that the critical voice of the stakeholders in my state and region can remain in regular contact with the Administration during the negotiations?

Yes, to the extent that the Department of Energy is involved in such negotiations.

18. The appliance efficiency program has a long history of bipartisan support going back to President Reagan. Do you agree that the program is valuable? Do you anticipate continuing to use this program to create jobs, save consumers money, eliminate pollution, and increase American competitiveness?

If confirmed, I will review this program to make sure that it is achieving appropriate goals.

19. The United States has enjoyed a formal energy relationship with Israel since 2007, rooted in a joint research and development program to allow U.S. and Israel scientists to partner in the creation of new energy technologies. This Committee has prioritized the expansion of this relationship, supporting funding for the program and looking to expand the parameters of that partnership.

In 2014 Congress passed the U.S.-Israel Strategic Partnership Act, a far reaching bill that I cosponsored. Energy represented one of the bill's most significant titles. The bill encourages enhanced research and development, elevated dialogue opportunities, collaboration between U.S. national labs and Israeli research institutes, and the creation of a new platform – a U.S.-Israel center on energy and water to link our governments, academia and private sectors in a new way.

How do you view the U.S.-Israel energy relationship as it stands today and what opportunities do you see for growth?

Israel is an important U.S. ally and I am firmly committed to strengthening U.S.-Israel energy cooperation. This will be beneficial to the U.S. economy and to our geopolitical interests in a crucial area of the world. I look forward to working with Congress on this shared commitment.

20. Do you share my belief that enhanced cooperation in water management is particularly pressing, given the state of much of the American west?

Yes.

21. The Strategic Partnership Act prioritized the development of a more robust U.S.-Israel energy relationship and authorized a number of mechanisms, including a U.S.-Israel center, to help achieve that goal. If confirmed, how would you work toward the implementation of these objectives?

If confirmed, I look forward to being briefed on this program.

22. *The purpose of the DOE's Advanced Technology Vehicles Manufacturing (ATVM) loan program is to help U.S. auto manufacturing companies build energy efficient cars in this country. Yet, of the loans issued under the program, most have gone to large, incumbent manufacturers.*

If confirmed, can you assure me that the Department of Energy's loan programs office will work in an open and transparent manner with qualified, innovative vehicle manufacturing start-ups – not just large auto manufacturers – to help launch new vehicles and create U.S. manufacturing jobs?

If confirmed, I will review the ATVM program to make sure it achieves its goals. I will be committed to transparency and accountability with respect to government investments.

23. *Do you agree that a priority for the Department is to ensure electric system reliability as energy sources continue to evolve?*

Yes.

24. *Do you agree that investing in transactive controls is critical for increasing the reliability of our nation's energy system? What steps will you take to advance the reliability of our nation's energy system as Secretary?*

This is an issue I look forward to being more fully briefed on if confirmed. I assure you that I am committed to energy reliability and to fulfilling this important mission of the Department.

25. *Would you advise the President-elect to include energy efficiency in a national infrastructure investment package?*

If I am confirmed, I look forward to working with the President-elect on the details of a robust infrastructure investment package.

26. *How will you work to strengthen trust between DOE and the national laboratories?*

I am planning to visit as many national labs as possible and to learn from our outstanding men and women who work there. Our national laboratories are the crown jewels of the nation and I plan to support and advocate for their work..

27. How do you propose to address the infrastructure needs – ranging from laboratory space updates and utility upgrades to seismic refitting and demolition of excess facilities that impose high maintenance costs – of the national laboratories?

I am committed to working with Congress and the incoming Administration to address the infrastructure needs at the labs.

28. Do you agree that Office of Science user facilities are an important part of our nation's scientific ecosystem? As Secretary, will you commit to keeping these important facilities open and available to the broader scientific community and ensure that they operate in an optimized fashion?

I believe user facilities are a valuable tool and among the best assets the national laboratories have. If confirmed, it will be a goal to increase access to the user facilities for federal priorities but also ensure opportunities for the private sector to utilize these user facilities.

29. Do you agree that technology transfer is an important component of DOE's work? What are your plans to encourage and increase the transfer of DOE technologies to strengthen U.S. economic competitiveness?

If confirmed, I am committed to promoting American energy, here and around the world. I hope to explore all the avenues available to transfer more of the great work performed at our national laboratories to the marketplace.

30. Will you review the findings and recommendations from the first and second installments of the Quadrennial Energy Review and work with me and others in Congress on a bipartisan basis to implement the recommendations? Do you commit to maintaining and supporting the Quadrennial Energy Review responsibilities and energy policy analysis functions of DOE?

I will review the findings and recommendations of the QER and evaluate all of the policy analysis functions within the Department.

31. The Department of Energy has traditionally consulted closely with the Northwest congressional delegation on many matters related to the Bonneville Power Administration (BPA). Will you consult with me and other members of the congressional delegation before proposing new initiatives or actions related to BPA?

Yes. I am committed to working with states and to being accessible to you.

32. Wind energy generation expanded significantly during your time as Governor of Texas. One reason was the construction of significant amounts of electric transmission to bring wind power from west Texas to consumers in the eastern part of the state. What should the federal government do to foster additional transmission capacity development around the country to support greater development of our wind and solar resources?

I am committed to an all-of-the-above approach that diversifies America's energy portfolio and invites competition. If confirmed, I hope to use my experience in Texas that embraced that all-of-the-above approach to be a leader of the country in energy production.

33. I worked with Secretary Moniz to create the Manhattan Project National Historical Park. Will the Department of Energy include a budget line in the FY 2018 budget and future budgets to fund Park infrastructure and improvements?

I am committed to working with the incoming administration and Congress for appropriate park and infrastructure funding.

34. Has DOE started planning for the installation for the need infrastructure at the three sites of the Park?

I have not been briefed on the current status of the DOE budget.

35. Is DOE currently coordinating with local communities to meet the needs of the communities and make this Park a success?

I have not been briefed on any such activities to date but look forward to learning more about these activities.

36. Do you value and understand the importance of the strong research connections and support between the DOE and research universities?

Yes.

37. As Governor of Texas, you moved the state government to consolidate data centers and to begin to transition state agencies to cloud computing. What would you do as Secretary to move the enable the Department to take advantage of the cost savings and security benefits of cloud?

I intend to be fully briefed by the Department's Chief Information Officer, and as part of that exercise, will be to determine where efficiencies could be achieved by moving to more modern information systems.

38. DOE supports several tools that help consumers understand what appliances and homes can save them energy and money on their utility bills. Will you support DOE efforts to help Americans understand how they can cut energy waste and save money on their bills?

I want to examine programs where the government works with the private sector to make more information is available to consumers.

39. Keeping America's energy networks secure from cyber intrusions is critical as new technologies and threats continue to emerge from transnational organized crime groups and hostile foreign governments. The smarter the power grid gets, the more vulnerable it becomes to cyber-attacks. As the Director of National Intelligence -- General Clapper -- said last year, cybersecurity is now a more significant threat to national security than terrorism.

Please answer the following question with either a "yes" or a "no." Will you support prioritization and spending on energy cybersecurity as part of the widely discussed infrastructure bill?

Yes. Energy cybersecurity is a critical issue and a significant part of DOE's mission. I will prioritize it with the incoming Administration and Congress.

Senator Ron Wyden

40. Governor Perry, the Pacific Northwest at the Hanford site has been a dumping ground for high-level, radioactive nuclear waste going back to the Manhattan Project. The Federal Government has an obligation to clean up this mess, but the Department of Energy, which is in charge of the effort, has spent \$40 billion over 3 decades without processing a single gallon of the waste. This is a problem that both Democratic and Republican Administrations have failed to fix. What are you going to do to turn things around at Hanford?

While it is premature for me to make any commitments at this point in terms of budget or scope of work specifics, I can assure you that this will be a high priority for me if I am confirmed.

I have had an initial discussion with Senator Cantwell about this issue, and pledge to work closely with the members of this committee to make progress at Hanford specifically, and on the nuclear waste issue more generally. I have also committed to go with Senator Cantwell and spend extensive time getting briefed on this issue.

41. Sen. Grassley and I head up a bi-partisan caucus here in the Senate to try to protect whistleblowers. As you may know, whistleblowers have been mistreated at Hanford and across the Department--with multiple examples of retaliation and intimidation. As Secretary, what are you going to do to change the culture at DOE so that employees can come forward and tell you, and the Congress, when things are going off the rails without losing their jobs?

If confirmed, I will learn what programs are in place to protect whistleblowers and enhance such programs, where appropriate.

42. As you and I have discussed, the Pacific Northwest is a leader in marine and hydrokinetic energy, with some of the most abundant ocean energy pounding on our shores day in and day out. The Pacific Northwest is also home to some of the most advanced wave energy technology research, with an epicenter at the Northwest National Marine Renewable Energy Center (NNMREC), which is led by Oregon State University, the University of Washington and the University of Alaska Fairbanks. NNMREC recently won (announced in December 2016) a DOE award to build what is expected to be a flagship open-water grid-connected test facility for wave energy converters globally. We look forward to working with you and bringing this project to a timely and efficient fruition. Do you commit to carrying this project forward to completion in a timely fashion and at the full \$40 million funding level?

In your office, you asked if I had plans to scrap this program. I do not. As a former governor of Texas whose borders touches the Gulf of Mexico, I am familiar with the energy potential of wave energy. If confirmed, I look forward to learning more about the program and working with you and Congress to ensure it has the support it merits.

43. Do you commit to working closely with my office, award recipients in Oregon and the Pacific Northwest, and other Oregon entities to ensure the smooth, transparent, fair and timely implementation of the project mentioned above?

I look forward to working with your office and local stakeholders to determine the best way forward for this project.

44. Governor Perry, there is a distinct possibility—under a Trump administration that is talking about slashing DOE programs—that China will be eating our lunch when it comes to clean tech: things like renewable energy, smart grid, and electric vehicles. We’re talking about a worldwide industry where \$7.8 trillion will be invested in renewable energy alone between now and 2040. We’re talking about an industry that currently employs over 2.5 million US workers, including energy efficiency jobs. These are engineering jobs, manufacturing jobs, construction jobs. These are good-paying jobs that make America competitive by improving our energy productivity. China is expected to invest \$360 billion by 2020 in renewable energy alone. What, specifically, would you do at the program level within DOE to ensure continued US leadership on clean energy technology? And what would you do as Secretary of Energy to keep—or increase—clean energy job growth at these levels?

If confirmed, I will work to ensure that important DOE programs, including research for renewable energy, are continued and funded at an appropriate level.

45. Do you believe that a bipartisan infrastructure package, the likes of which has been discussed by Trump and his advisors as a top priority for the administration, should include energy infrastructure such as grid modernization?

Yes. Although I have not been fully briefed on the details of any proposed infrastructure packages, I intend to explore whether energy infrastructure or grid modernization can be considered an appropriate part of an infrastructure plan.

46. With more than 1 million solar roofs in the United States, how would a DOE under your leadership continue to give people the innovative, low-cost solar energy they want? Will you support the DOE programming required to meet the recently released SunShot goals?

I support basic research and development to uncover the technological breakthroughs that will allow any number of new technologies, including solar, to be more competitive. While I have not been fully briefed in the SunShot program, I will work with you and the Committee on an appropriate level of funding.

47. Governor, you championed the expansion of electricity transmission in Texas. How do you envision DOE’s role in facilitating transmission development nationwide?

Electricity transmission is a vital piece of America’s energy infrastructure. In Texas, we invested in upgrading the transmission grid to take full advantage of abundant renewable energy in the western part of the state. If I am confirmed as DOE Secretary, I will bring the same commitment

to enhancing our energy infrastructure nationwide. I plan to discuss these issues with career staff and figure out the best, most effective way to encourage infrastructure development.

48. As you have noted, Texas has become the largest source of wind power in the United States. It is our understanding that in Texas wind employs 24,300, solar employs 11,700, and coal mining 3,400. Do you believe that the wind energy has helped Texas' economy? How?

Yes. I believe our policies in Texas have allowed multiple energy sources to thrive. We provided a regulatory environment where investors could move forward with confidence on new projects, and we created some incentives to bring new technologies into the market. The result was job growth and abundant energy to fuel our growing economy. I am pleased that my nomination was endorsed by the American Wind Energy Association.

49. According to the Wind Energy Association and Solar Energy Industries Association, the United States has 400,000 wind and solar jobs – 310,000 in solar and 88,000 in wind. Do you agree that the Department of Energy should continue to fund research and development to support this growing industry and American Jobs?

Renewable energy should be part of an “all of the above” energy strategy. I believe that the Department of Energy should continue to invest in the basic research that will spur the innovation that will keep America’s economy, including its wind and solar industries, competitive.

50. Despite discussion of programmatic cuts at the Department of Energy, will you commit to defending the Office of Energy Efficiency and Renewable Energy?

EERE is involved in important work. I look forward to getting fully briefed on the status of the program if I am confirmed.

51. Governor Perry, do you support maintaining at least FY 16 spending levels for the Department of Energy's Office of Electricity Delivery and Energy Reliability?

If I am confirmed, I will support spending levels that will ensure the Department of Energy can fulfill its mission.

52. While I understand you cannot control the whims of the congressional appropriations process, in your proposed budgets, will you commit to maintaining at least FY 16 spending levels for the Department of Energy's Office of Energy Efficiency and Renewable Energy?

If I am confirmed, I will work with Congress and the incoming Administration to ensure that funding levels for the Office of Energy Efficiency and Renewable Energy are set at appropriate levels.

53. While I understand you cannot control the whims of the congressional appropriations process, in your proposed budgets, will you commit to maintaining at least FY 16 spending levels for the Department of Energy's Office of Electricity Delivery and Energy Reliability?

If I am confirmed, I will work with Congress and the incoming Administration to ensure that funding levels for the Office of Electricity Delivery and Energy Reliability are set at appropriate levels.

54. Governor Perry, do you support increasing funding levels at the Department of Energy for energy storage research, development and demonstration?

If I am confirmed, I will work with Congress and the incoming Administration to ensure that funding levels for energy storage research, development demonstration are set at appropriate levels.

55. Governor, you said in our meeting in my office prior to your nomination Hearing that energy storage is the "Holy Grail." Do you still hold this perspective, and if so can you elaborate on what you meant by this?

Being able to economically store large quantities of energy would open the market to many of the renewable resources which many of us would like to see be successful. In addition to allowing for a more diverse and reliable energy mix, it would provide a sizeable market opportunity.

56. The Department of Energy has a proven track record on improving the energy efficiency of buildings and appliances. DOE estimates these standards will save American consumers and businesses nearly \$1 trillion by 2020, and that the energy efficiency sector employs a whopping 2 million people. These are engineering jobs, manufacturing jobs, construction jobs. These are good-paying jobs that make America competitive by improving our "energy productivity." There is broad support among domestic manufacturers and companies for DOE's energy efficiency appliance standards. What will you do as Secretary of Energy to ensure that these standards are enforced, and that the Department continually advances US energy efficiency standards?

I am a great believer in efficiency and I would support efforts to help the public achieve such. However, I have not been briefed on the full array of Departmental efforts in this area. If I am confirmed, I will commit to learning more about the Department's role meeting America's efficiency needs.

57. What concrete steps would you take, if confirmed, to help improve access to affordable capital for cost-effective energy efficiency projects in the large business, small business, industrial, single-family residential, multifamily, and public sectors?

I cannot provide an answer to this question at this time; however, I look forward to working with you and the committee to learn more about the capitalization of energy efficiency projects.

58. Governor Perry, do you support maintaining current funding levels for the federal Weatherization Assistance Program, which has improved the lives of more than 7 million low-income American families across the country?

I need to learn more about the Weatherization Assistance Program and its effectiveness before making a determination. If confirmed, I will be briefed on this program.

59. Considering energy efficiency, focusing on individual products has taken us a great distance, with projected savings of \$1 trillion to Americans by 2020. For instance, consider where commercial buildings connect to the power grid—or even within buildings where heating and cooling systems work alongside lighting, communications, and water distribution systems. Think of the utility operator, like those in Texas and Oregon, that may have opportunities to coordinate and deploy demand response technologies to ease stress on the grid on especially hot days when cooling loads might peak for the year, and how building systems can work together to provide this stress relief. The building design and engineering communities have begun to set their sights on opportunities for optimization and energy & cost savings at a higher, “systems” level. What is your view of current energy efficiency efforts at DOE, and would there be room for looking at pursuing a more “systems level” approach, while not losing the gains we’ve made on the appliance level approach?

Demand response technologies are exciting innovations that could save households and businesses a lot of money and also help drive down emissions. They can be valuable tools in communicating real-time information to help energy consumers make better-informed decisions. If confirmed, I look forward to exploring ways to maximize opportunities to drive energy efficiency at all levels.

60. What do you think DOE’s role should be in the United States Government and in the United States economy?

For the United States Government, the Department of Energy’s critical mission remains the maintenance and protection of America’s nuclear weapons. For the United States economy, the Department of Energy should continue to serve as a catalyst for world class, cutting edge research breakthroughs across a wide range of scientific fields.

61. Governor Perry, you have previously accused scientists of manipulating data to maintain funding for their projects. Given that history, how will you inspire confidence in a department full of scientists and researchers?

If confirmed, I hope to maintain and promote an agency where scientists can be transparent and open about their data and their research. They will discover that in me, they will have a Secretary interested in their work and operations.

62. What role do you envision the Trump administration’s DOE should have in the mitigation of climate change?

As I mentioned in my hearing, I believe there are ways to both drive down emissions and grow the economy. The best and brightest minds at DOE's national laboratories can play an integral role in developing those technologies that provide economic benefits and climate benefits.

63. Would you also agree with the majority of scientists that the main way humans are contributing to climate change is through greenhouse gases associated with the production and consumption of fossil fuels like coal and oil?

As I noted in the hearing, I believe the climate is changing. I believe some of it is naturally occurring, but some of it is also caused by manmade activity.

64. The science-based finding is that the United States government should enact policies and programs, including policies and programs at the Department of Energy, that reduce US economy-wide greenhouse gas emissions along a trajectory that is commensurate with the scientific goal of limiting global warming to 2 degrees Celsius. What will you do as Secretary of Energy to accord with this reality?

I believe we can achieve both economic growth and emissions reductions with the right policies. I am committed to thoughtful policies that balance these two objectives.

65. Would you agree with the science-based finding that the United States government should enact policies and programs, including policies and programs at the Department of Energy, that reduce US economy-wide greenhouse gas emissions by 80% from 1990 levels by the year 2050?

I believe we can achieve both economic growth and emissions reductions with the right policies. That said, before committing to policies and programs that would reduce greenhouse gas emissions 80% below 1990 levels by 2050, I would like to see what those programs entail. As a former Governor of Texas, I am proud of the record we achieved to reduce greenhouse gases at a time when our population and the number of jobs increased.

66. In your remarks at your nomination hearing, you equivocated on the extent to which human activities are to blame for climate change. Exactly to what extent, citing specific peer-reviewed reports and data, do you think that human activities are (or are not) responsible for climate change?

I addressed the issue of climate change in my opening statement. I look forward to open, honest and transparent policymaking that is guided by sound science.

67. You've claimed that there are a "substantial number of scientists who have manipulated data so that they will have dollars rolling into their projects." What percentage of climate scientists is a

“substantial number?” And what evidence do you have that the majority of our best scientific efforts are skewed? Please provide specific citations for the record.

At the hearing I said quotes were less important than results achieved in reducing greenhouse gasses. At the hearing, I said while I was Governor of Texas, our power plants reduced their carbon output by 17%; sulphur dioxide was reduced by 56%; nitrous oxide was reduced by 66%. This occurred at a time when the Texas population and the number of jobs substantially increased.

68. Oregon is the number one softwood-producing states in the nation. Oregon, Washington and Idaho produce more than \$11 billion in wood product sales. Studies have suggested that a temperature increase of just over 3 degrees Fahrenheit, well within even conservative climate change projections for this century, could lead to a 54% increase in the area burned in the western United States. This would have devastating economic consequences in my state. Governor Perry, you have highlighted the importance of finding balance between climate change mitigation and our nation's economy. However, given projections like this one, wouldn't you agree that there are economic costs associated with a lack of action to mitigate climate change?

Yes, I believe there are economic costs associated with climate change. If confirmed, I look forward to working with the Committee and climatologists to understand the risks to America's forests associated with climate change.

69. It has been estimated that a temperature increase of 3 degrees Celsius, which is a very conservative projection, could cost the United States \$150 billion per year. Do you think that these projected costs can be ignored in a scientifically based discussion about climate change as it relates to our economy?

We need to take care that the benefits of governmental actions exceed their costs.

70. Do you intend to incorporate the Social Cost of Carbon into your cost-benefit analyses and policymaking decisions at the Department of Energy?

I intend to review and evaluate all existing mechanisms currently used in the cost-benefit and policy making decisions at the Department of Energy.

71. The American Association for the Advancement of Science (AAAS) has made the following statement: "The scientific evidence is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society." Would you agree with this statement?

I believe the climate is changing. I believe some of it is naturally occurring, but some of it is also caused by manmade activity. The question is how we address it in a thoughtful way that doesn't compromise economic growth, the affordability of energy, or American jobs.

72. The American Geophysical Union has made the following statement: "Human-induced climate change requires urgent action. Humanity is the major influence on the global climate change observed over the past 50 years. Rapid societal responses can significantly lessen negative outcomes." Would you agree with this statement?

As noted above, I believe the climate is changing. I believe some of it is naturally occurring, but some of it is also caused by manmade activity. The question is how we address it in a thoughtful way that doesn't compromise economic growth, the affordability of energy, or American jobs.

73. You noted a commitment to using science as your guide and relying on data while making policy at DOE during your public testimony today. You also related a sobering moment in reacting to the possible threat to Harris County by Hurricane Katrina. Yet Katrina was in 2005, and the Governor Perry of 2012 was adamantly opposed to climate change. What changed your mind?

I believe that the climate is changing and that there are steps we can take that make both environmental and economic sense. That was my record in Texas, where we had significant success in cleaning up the environment, and at the same time, we had robust economic growth.

74. In 2004, the United States Court of Appeals for the D.C. Circuit stated that "Radioactive waste and its harmful consequences persist for time spans seemingly beyond human comprehension"--on the order of seventeen million years. What would a safe and secure solution for the disposal of spent nuclear fuel and high level radioactive waste look like to you? The Obama Administration's decision found the proposed Yucca Mountain site in Nevada to be unworkable for both technical and legal reasons. Do you plan to alter the previous administration's policy, and if so, how?

I recognize that the problem of nuclear waste management is extraordinarily complex. I have not been fully briefed on the issues. I am committed to working to solve the problem and look forward to efforts with states, industry and this committee in doing so.

75. Do you believe a state should have more or less power with respect to siting nuclear waste facilities? If states should have less power with respect to nuclear waste coming to reside in its borders, how would that work when Nevada has said “no” repeatedly. And how much would restarting the Yucca licensing process cost and how long do you think it would take?

Decisions about storing and managing radioactive waste must respect a strong role for states. I cannot at this time make an assessment about the time and costs associated with the Yucca project but I am committed to learning more about the project and helping to resolve this national problem.

76. What would a DOE under Secretary Perry do to protect the electricity grid—and American citizens—from cyber attack?

The reliability and the physical security of our grid are very important to me and a crucial role of the Department. If confirmed, I look forward to discussion about how to harden our grid and prioritizing cyber security efforts. The DOE should work with the other agencies to develop a seamless and coordinated plan for addressing major attacks. I also look forward to strengthening the Electricity Subsector Coordinating Council as an important public private partnership. If confirmed, I would work to ensure that communication between these CEOs and my office is strong, and that the efforts of this group continue to focus on removing barriers to information sharing and technology development efforts.

77. Our troops are often reliant on dangerous fuel convoys to keep them operating. Do you think tightening vehicle efficiency standards and supporting the deployment of renewable energy technologies is worth supporting to help minimize the risk to our troops?

If confirmed, I will look into this issue alongside our national security experts.

78. The Department of Energy has issued a strong scientific integrity policy that gives DOE scientists tools to resist attempts to manipulate or censor scientific findings. These types of policies are vital to ensuring that our policy and management decisions are based on the best available science. Can you commit to upholding these scientific integrity policies? And, how do you plan to implement them?

Yes. I strongly believe in the importance of objective research and the freedom of scientific inquiry.

79. Senator Cornyn, whom you know well, and I have been pushing the idea that taxpayers ought to be able to access the research their tax dollars fund. Do you support this idea of open access? If confirmed, will you pledge to work with us to make research conducted at or funded by the Department as transparent and accessible as possible?

Yes, I am committed to transparency and accessibility. If I am confirmed, I commit to working to increase the effectiveness of taxpayer dollars spent at our national labs for the greatest benefit and opportunities for innovation.

80. Governor Perry, our electricity grid—once touted by the National Academy of Engineering as the single greatest engineering achievement of the twentieth century—is in need of serious help. Can you commit on working to modernize our electric grid? If so, what steps will you take to advance grid modernization?

Yes. If confirmed, it is my goal to make modernizing the electric grid a priority. I will need to study the issue before committing to specific steps.

81. There is evidence that new transmission lines and more costly energy generation options—such as “peaker plants”—could be substituted with wise use of smart grid technology, demand response and other “non-wires solutions.” How will a DOE under your leadership champion advanced energy technologies such as these?

Energy technology is the key to the future. I am committed to ensuring we have the proper investment in basic research for such technologies

82. Governor Perry, I’m sure you realize that energy storage and an increasing number of aggregated distributed energy resources (DERs) can provide a range of valuable services to the electricity grid, such as frequency regulation and capacity. In many parts of the country there are no means for remunerating these technologies for the services that they provide, which creates a market distortion against these technologies. What will you do at the Department of Energy, and in your relationship with the Federal Energy Regulatory Commission, to ensure that the full suite of technologies is identified for the value-streams they provide to the grid? For example, would your DOE continue working to better define the value different services the grid can provide?

If confirmed, I look forward to hearing the views of the committee members and state regulators on this issue. As a former Governor, I believe that states should remain key partners in any decision making regarding generation as it pertains to reliability.

83. *Would a DOE under your leadership work to increase price transparency and market efficiency in the electricity system by investigating opportunities to support the voluntary state-level development of granular retail electricity pricing, including time-varying retail electricity prices?*

If confirmed, we will conduct electricity research that is within our statutory mandate.

84. *Considering the integrity and security of the nation's electricity system, as well as the efficiency with which smart-grid enabled appliances and equipment are deployed in the market, do you believe it would be useful to promote open interoperability standards for smart-grid enabled technology? And if so, how would you recommend doing so?*

I have not been briefed on open interoperability standards and look forward to learning more.

85. *Utility data access is important for many businesses capable of providing services to consumers, such as enabling more accurate modeling and forecasting of locational electricity demand needs. What is your view on utility data access, and how would you work to make sure both sides of this debate get a fair shake?*

In Texas, data sharing was a key component of deregulation. If confirmed, I look forward to being more fully briefed on this issue and working with individual states in recognition of their market structures and regulatory history.

86. *Electric vehicles (EVs) have come a long way. The problem is that we're talking about two very separate, siloed industries with very few interconnections. With more EV-grid integration, it's possible for EVs to even provide valuable services back to the grid when needed. What can we expect from you in supporting further electric vehicle-grid integration, and in facilitating dialogue between US automakers and electricity companies?*

I support programs that make sense for the American people. I would like to hear more about how there might be a lack of dialogue between automakers and electricity companies.

87. While tax policy is outside of your jurisdiction, energy policy is not. The Section 45 Production Tax Credit and the Section 48 Investment Tax Credit have helped the nation develop homegrown, renewable energy resources and led to thousands of new manufacturing, construction, and operation jobs across the country. In your capacity as Secretary of Energy, will you advocate for the extension of the clean energy Production and Investment Tax Credits?

I believe that the future for renewables is bright. You may see from my record that we supported tax credits for renewable energy in Texas. That's something I'm proud of and that helped turn Texas into the top wind producing state in the nation. It is a state's prerogative to provide tax credits to certain industries. But I'll posit to you that this is only popular if it is a responsible use of taxpayer dollars and in citizens' interest. In general, I believe that when industries can stand on their own – without government support – they should do so.

If confirmed, I look forward to learning more about the programs run from the Department to ensure that the American taxpayers are being protected and that government action is not interfering with the private sector.

88. Over the past year, low natural gas prices, economics, and advances in renewable energy led to the closure of multiple nuclear reactors. Please state your thoughts on the future of nuclear energy here in the US and internationally.

As I stated at the hearing, I favor an “all of the above energy strategy” and that would include nuclear power. Nuclear power can be an important part of our future energy mix.

89. U.S. and Russian nuclear testing programs have faded with the memories of the Cold War. Will you continue the bipartisan consensus of your predecessors against further nuclear testing?

If confirmed, I look forward to learning more about U.S. nuclear modeling and simulations and how that relates to the benefits and downsides of nuclear testing.

90. Nuclear weapons modernization for the U.S. is a trillion-dollar, decade-long program that promises to provoke a new nuclear arms race. What is your view on the future of the U.S. nuclear weapons complex?

I am committed to maintaining a secure and credible nuclear deterrent consistent with the laws that I am sworn to uphold. I will defer to national security experts to determine what that complex looks like.

91. The National Nuclear Security Administration (NNSA) oversees the safety, security and effectiveness of our nation's nuclear stockpile. The president-elect has not yet indicated that he will allow political appointees at NNSA to remain in their offices until replacements are confirmed. Would you support keeping the current political appointees at NNSA until there are replacements, as has been done in the past?

I am committed to ensuring a safe transition from one Administration to the next. In so doing I will work with experts within the Department of Energy and NNSA to ensure that we have a team that is fully capable of ensuring the safety and effectiveness of our nation's nuclear stockpile.

Senator Bernard Sanders

92. The Kemper “clean” coal project was granted some \$500 million in DOE grants by DOE’s Office of Fossil Energy. The most expensive power plant per megawatt ever built in the U.S., not only doesn’t work, but has cost five times its initial budget of \$1.2 billion.

Yet DOE continues to uncritically support a boondoggle that saddles local utility customers with unsustainable rate increases.

This is a failed project many times the size of the much-criticized Solyndra. Will you commit to review the Kemper project and DOE’s costly investment of taxpayer money?

If I’m so fortunate as to be confirmed, I am committed to reviewing this program and will review the entirety of the Department’s programs to ensure that the American taxpayers are getting a good return on their dollar and that the programs are accomplishing what they should. There needs to be transparency and accountability for our government programs.

93. During the election primary, you were one of several Republican candidates president-elect Trump called “puppets” for attending an exclusive donor event put on by the Koch brothers, the Kansas petrochemical billionaires and anti-democratic ideologues.

Your close association with the extremist Koch brothers includes attending several of these donor events. Donors in the Koch network, along with other billionaire oilmen from Texas, supported your election efforts in 2012 and 2016, particularly by financing your SuperPAC.

Koch Industries and its billionaire owners are top funders to groups that gave you a national platform as a candidate, like the American Legislative Exchange Council (ALEC) and Americans for Prosperity, or helped write your policy initiatives as Governor, through the Koch-funded Texas Public Policy Foundation (TPPF). You have even given keynote address to both ALEC and Americans for Prosperity.

How can you assure the American people you will be looking out for them as Secretary of Energy and not oil industry extremists who have given you hundreds of thousands of dollars and influenced your policy initiatives throughout your entire political career?

As Governor, I was always looking out for Texans, first and foremost. If confirmed, I will look out for the good of all Americans with respect to DOE’s important mission.

93. In 2005, as Governor of Texas, you wrote Executive Order RP 49, which fast tracked the approval of coal-fired power plants in Texas by shortening the environmental review process. Subsequent to the order, you received over \$100,000 from electric utility interests. A major proportion of those contributions came from TXU Corporation, which you joined for a press conference with their executives to announce their \$10 billion plan to build 11 coal-fired electric generating units.

You claimed this buildout would diversify the state's energy supply and, even more remarkably, that it would be "protective of the public health and environment."

Only three plants were ultimately built, fortunately for Texans. Your energy diversity claim was based on higher natural gas prices which were then spiking in part due to Hurricane Katrina.

Had all of your proposed coal plants been built, ratepayers would have suffered tremendously. Natural gas prices later plummeted, causing havoc for investors that bet on cheap coal. TXU went bankrupt in 2014 and energy diversity in Texas was ultimately achieved not by fossil fuels, but by the expansion of wind energy.

If confirmed as the next Energy Secretary, your judgment will be critical in shaping how we generate electricity in the future. Do you still feel that you made the right decision by backing TXU's plan? Can we trust that you will select to fund energy projects irrespective of past contributions from industry? Will you show impartiality between fossil and renewable energy investments?

If confirmed, I will pursue the investments that have the greatest return and benefits for American taxpayers based on the available evidence. Advocating for an "all of the above" energy approach, in a fiscally responsible manner to be accountable to taxpayers, is something I will strive to do.

94. Oil, gas, and coal are global commodities subject to market supply and demand. Even if the US supplied all of its demand for fossil fuel energy, we would not fully insulate ourselves from potentially large swings in commodity prices. For solar and wind energy, however, the electricity produced by these sources of energy remain in the United States. If we're trying to become energy independent, a goal that you've supported in past statements, would it not make more sense to prioritize solar and wind-generated electricity that can't be exported from the United States and is not vulnerable to global pricing?

I am committed to examining all energy sources and ensuring a stable supply of energy, and that includes nuclear power, coal, oil, natural gas, renewables, and new technologies we haven't even discovered yet to supply energy to our country.

95. The secretary of DOE will have more than \$5 billion in discretionary funds for energy research and development. As Governor of Texas, you pioneered your own incubator of energy research called the Texas Energy Center. In 2004, that program was awarded with \$30 million of state funds in an effort to spur public-private partnerships. But a year later the project shrunk to \$3.6 million. Ten years later the Center was disbanded while you were still in office. Reports indicate few jobs can even be attributed to this project. What lessons were learned from the Texas Energy Center?

It provided a valuable lesson in the difficulty that comes with investing in emerging technology. If confirmed, my goal will be to steward taxpayer money effectively to maximize its value.

96. In 2014 you aggressively courted Tesla Motors to build its 'gigafactory' in Texas—a \$5 billion dollar battery manufacturing facility. Do you still support Tesla's pioneering work with batteries and electric vehicles as the future of transportation and energy storage?

Private companies all over the U.S. are engaged in cutting-edge technology. This is something I want to build on and encourage. I support all companies that engage in pioneering energy work in the hope of offering Americans products and services.

97. A common critique of your Administration in Texas was that your largest campaign donors received benefits in the form of preferential access, contracts, appointments, and even multi-million dollar tax cuts for their businesses. One example is a gentleman by the name of George Brint Ryan. Mr. Ryan, owner of the tax consultancy firm Ryan LLC, has been omnipresent in your Administration's efforts to recruit businesses to the state of Texas through the use of tax breaks. Over the years, Ryan has contributed over \$600,000 to your campaign. Former Ryan LLC staff made their way into your Administration and vice versa. Mr. Ryan has been appointed to commissions and boards by your Administration. If confirmed, will you recommend DOE political appointments of current or former Ryan LLC employees—or any other personnel that have contributed to your campaigns or are affiliated with businesses or PACs that have done so?

If confirmed, I will work with the incoming Administration to select candidates who will best serve the American people.

98. One of the many offices you will oversee is the Energy Information Agency (EIA). EIA provides critical data that industry relies on to make long-term decisions. For this reason, the integrity of EIA's data is critical. Will you maintain the long tradition (and law) of honoring the independence of this data collection agency and maintain their funding?

Yes. I will maintain the long tradition of honoring EIA's independence.

99. There are many companies in my state of Vermont supporting clean energy—from companies that assemble solar arrays to companies that specialize in making homes and businesses more energy-efficient. The State of Vermont has set a goal of 90 percent clean energy by 2050. How will you support Vermont's efforts?

If confirmed, I will welcome more input from you about Vermont's goal and your perspective on any basic research that the Department conducts which might make you State goal attainable.

100. In Vermont, Act 56 requires Vermont utilities to assist customers with adopting new technologies that reduce carbon emissions. How will you support tools Vermont's efforts?

This is a state program with which I am not familiar. If I am fortunate enough to be confirmed, I look forward to learning more about this program and working with you on it.

101. The availability of cheap natural gas (through the process commonly known as fracking) has drastically changed the economics of the electric generation marketplace. This has resulted in a large number of coal-fired power plants and several nuclear plants to permanently shutdown because they are unable to economically compete with high-efficiency gas-fired power plants. What DOE efforts or incentives would you consider appropriate to assure that the nation's capacity to generate electricity through means other than gas-fired power stations is retained, thereby assuring stable electricity prices should natural gas prices increase significantly?

I believe that fuel diversity is important. A variety of energy sources reduces dependence on any one source of energy and promotes healthy competition that benefits Americans. If confirmed as Secretary, I would work to promote all energy sources and strengthen America's energy portfolio.

102. What specific actions will you take as head of DOE to expand equitable clean energy access, and access to clean energy jobs, in low income communities, communities of color and tribal communities?

The best way to provide equitable energy access and to create jobs is for energy to be affordable and abundant. If confirmed, I will look into specific actions along these lines.

103. Will you support the budget and staffing requirements to maintain and ramp up (i) Energy efficiency improvements via the Low Income Housing Energy Assistance Program (LIHEAP) and the Weatherization Assistance Program (WAP) (ii) The Community Solar Challenge? (iii) The Solar training network (iv) Innovative tools like Property-Assessed Clean Energy (PACE) Financing?

Should I be confirmed, I have pledged to be an advocate for the Department and the programs for which Congress authorizes and appropriates money.

104. Electricity costs represent a disproportionate share of the income of low-income households, as pointed out by the QER. What specific actions will you take to target DOE programs, technical assistance and regulations to help ensure that these households have access to affordable clean energy and do not bear a disproportionate burden of investments in the power system?

The best way to help these households is to make sure we have affordable energy of all types. Affordable energy is critical for low-income communities, communities of color, and tribal communities. If confirmed, I look forward to hearing more about what steps can be taken to address this issue.

105.: Do you support and promise to uphold the merit system principles set forth in Chapter 23 Title 5 U.S. Code, which prohibit factors other than merit from consideration in civil service employment decisions?

Yes.

106. As Secretary, do you believe that Congress, using the Holman Rule, which allows any member of Congress to propose amending an appropriations bill to single out a government employee or cut a specific program, to be an appropriate measure when used against your Department?

I have not reviewed the Holman Rule and cannot comment at this time. But I am committed to the outstanding staff and work of the Department and believe that personnel decisions are best made by the people closest to the employees.

106. Will you support Congress in passing an amendment under the Holman Rule that targets one of your employees or would you oppose?

I have not reviewed how the Holman Rules works and cannot speculate without the specific facts of the situation at hand.

107. As Secretary, do you believe that you will be better able to recruit and retain top talent if Congress is able to individually target employees based on their political whims?

No. Targeting employees based on political whims would be a problem.

108. As Secretary, do you support Congress targeting and altering the salaries of individuals within your Department?

If confirmed, I will be more fully briefed on this issue.

109. As Secretary, how do you view the division of responsibility and authority between Congress and your Department on personnel issues?

Congress has the power of the purse and it represents the American people. It is the Department's job to carry out the laws passed by Congress, including laws regarding personnel issues.

110. What do you consider to be the geo-political impact on our national security by continuing to burn fossil fuels?

Today, the national security of the United States is enhanced because of low-cost petroleum. It allows us to project military power around the world. Furthermore, America's low electricity rates, which derive mostly from natural gas and coal, help the U.S. economy be more competitive and in turn enhance our national security.

111. What in your view would be the strategic consequences if countries such as Russia, China, India, or Pakistan were to resume nuclear testing? How will you help reinforce the global taboo against nuclear testing and take steps to strengthen it?

If confirmed, I commit to working with the incoming Administration and our national security leaders on the issue of nuclear testing.

112. It has been over 15 years since the Senate last considered the CTBT. Since that time, there have been two National Academy of Sciences reports and several National Intelligence Estimates that have documented the remarkable progress made in the U.S. to sustain the arsenal without testing and the U.S. and international community's ability to monitor and verify compliance with the treaty.

Will you commit to reviewing the large body of new evidence that has emerged since the Senate last considered the treaty in 1999?

I have not been briefed on these matters, and I commit to receiving appropriate briefings.

113. Would you support developing and implementing an international detection system, where costs are shared by a coalition of governments, which would allow us to detect a nuclear explosion and determine if a country was in compliance with the Nuclear Nonproliferation Treaty?

I have not had the benefit of any classified briefings on our current detection capabilities for detecting nuclear explosions. I would want to learn more about the issue before committing to any specifics moving forward.

114. If the answer to Question 24 is no, why not?

115. If confirmed, will you commit to promoting the ratification of the Comprehensive Test Ban Treaty?

I have not been briefed on the Comprehensive Test Ban Treaty and cannot render an opinion at this time.

116. The NNSA's science-based stockpile stewardship program has successfully maintained the nation's nuclear weapons deterrent for more than 20 years without underground nuclear testing. Our country's leading universities play an important role in this program by not only training and educating the future workforce on science issues relevant to the stockpile, but they also build and operate world-class facilities and instrumentation to help resolve issues related to an aging stockpile. Do you support academic programs in support of the science-based stockpile stewardship program?

Yes.

117. How robust and reliable are the metrics/measures used to monitor nuclear power plant safety margins? If in your opinion, they are not sufficiently reliable, how would you improve them?

Safe and secure nuclear energy will likely be a critical energy source for the nation for decades to come. If confirmed, I look forward to learning more about how safety is measured and working to ensure that the United States maintains the safest fleet of nuclear power plants in the world.

118. The NNSA project to build a plant to fabricate plutonium (MOX) fuel from excess U.S. weapons plutonium is decades behind schedule and is projected to cost \$50 billion or more. The plant is being built to comply with a U.S-Russian agreement, but Russia has suspended implementation of its side of the agreement. Do you agree that this wasteful project should be terminated and a cheaper and more efficient method for disposing of waste plutonium be developed instead?

I have not been fully briefed on the MOX program. I will pursue all options consistent with following the law.

119. In using railroads to transport Spent Nuclear Fuel, how would you propose to balance state and local government needs for assuring public safety against the US railroad industry's rights to select transportation routes and manage commodity (i.e. the spent fuel) movement as guaranteed by "Common Carrier" law?

As a former governor of a state that hosts a low level nuclear waste disposal site, I am well aware of the complexities of moving radioactive waste. Further, that experience makes me very sensitive to the legitimate role that states have in assuring public safety. If confirmed, I would work with states, industry, and the federal government to resolve such issues in a safe and amenable way.

120. The DOE SunShot Initiative is a hugely successful research and development program that has made solar much more affordable, and is 70% of the way towards achieving its goal of making solar fully cost-competitive with traditional energy sources by 2020. This program has contributed to a 22%

increase in employment year over year for now more than 200,000 solar industry jobs. Jobs in the solar industry are growing at a rate 12 times faster than the overall economy. Given this success, will you commit to finish what SunShot started under Secretary Moniz?

If I am confirmed, I look forward to being briefed on this program.

121. China leads the world in solar photovoltaic manufacturing. The largest markets for solar and wind are also in China. Do you believe the US is falling behind in clean energy? Will competing with China to develop renewable technology be a priority if you are confirmed?

As noted in my hearing, I am very competitive. China presents the U.S. with a real challenge, but I believe in our ability to out-develop and out-compete China.

122. Texas leads the nation in wind production with over 18,000 megawatts of installed capacity. That is triple the 5,880 megawatts mandated by the Renewable Portfolio Standard you signed into law in 2005. Texas, according to EIA data, has some of the lowest electricity rates in the nation, ranking on average as one of the ten cheapest states. According to industry estimates, there are now over 24,000 jobs in the Texas wind industry. Do you believe wind energy has benefited ratepayers in Texas, as well as the economy?

Yes. Wind can be a net positive for ratepayers. I am proud of Texas' record on development of wind energy.

123. President-elect Donald Trump has tweeted that "[n]ot only are wind farms disgusting looking, but even worse they are bad for people's health." There are over 10,000 wind turbines installed across the state of Texas. Do you agree with the President-elect's characterization of the wind industry as "bad for people's health"?

As I stated in the answer above, I am proud of Texas' record on development of wind energy. Wind energy produced many economic and environmental benefits for Texas.

124. If confirmed as Energy Secretary, you will be in charge of an agency with a critical, and highly scientific and technical, mission. Yet, in 2011, when a team of scientists produced a report on Galveston Bay that included a chapter on sea level rise, an issue of serious concern to residents dealing with cyclical flooding, your Commission on Environmental Quality eliminated all mentions of climate change, even deleting how fast the seas were rising. Under which conditions, if any, will you allow political considerations to override the findings of DOE scientists and engineers?

I do not believe in allowing political considerations to override sound science. I believe in a robust exchange of ideas. If confirmed, we will carefully review the scientific evidence and reports.

125. Are you familiar with the Department of Energy's scientific integrity policy? If so, what do you see as its strengths?

Should I be confirmed, I look forward to being briefed on the policy specifics. Having said that, I am a strong supporter of scientific integrity.

126. Professional development is important to most federal employees. To stay current in their field of research and be most effective in serving the taxpayer, Department of Energy scientists must be able to participate in scientific society meetings, where they learn about new research and develop new collaborations with academic and private sector scientists. Recently, the White House clarified guidance for federal agencies to ensure that federal scientists are able to travel to scientific meetings in a fiscally responsible way. What steps would you take to ensure that this balance is maintained?

If I am confirmed, I will work toward having a proper balance between the value of having federal scientists attend scientific meetings and the need to be fiscally responsible.

127. Should DOE scientists be allowed to express their personal opinions about any issue as private citizens as long as they provide a disclaimer that they are speaking in a personal capacity and not for the agency?

Should I be confirmed, I look forward to being briefed on current laws and practices.

128. Should DOE scientists have the right of last review to ensure the accuracy of materials that rely on their scientific work or expertise—including scientific reports, executive summaries, congressional testimony, press releases, and websites?

Should I be confirmed, I look forward to being briefed on current laws and practices.

129. Are there any parts of the DOE website that you believe contain incorrect, incomplete, or erroneous information or descriptions of climate change science?

If confirmed, I will ask my senior management team to have the goal that information posted is correct, complete, and scientifically defensible.

130. Do you think that DOE collects sufficient data to address environmental and public health threats? If not, what additional data is worth collecting?

I would welcome working with appropriate departments and agencies, and the Committee, to explore if there are areas where the DOE can play a more proactive role in collecting data pertaining to environmental and public health threats.

131. Are you committed to ensuring that DOE data is proactively made available to the public, consistent with privacy and confidential business information laws?

Yes.

132. Will you ensure that all data and data interpretations that are currently on the DOE websites continue to be publicly available, and if they become out of date, are archived in an accessible manner?

Yes.

133. Do you believe that the Freedom of Information Act has an assumption of openness—that documents should be made available to the public unless there is a compelling need to withhold them?

Yes.

134. The most robust scientific integrity policies allow government scientists to speak openly with the press and the public about scientific matters. Would you improve your agency's policies to make this explicit?

DOE employees of all types should be able to speak openly without fear. If confirmed, I would encourage robust scientific integrity policies inside a framework to ensure that they do not compromise national security.

135. Do you agree that only scientists and technical experts should edit scientific and technical content?

I am committed to producing sound science. If confirmed, I will have appropriate staff review the Department's policy for reviewing scientific and technical data.

136. Do you think public affairs officers have a role in editing scientific or technical content? If so, why?

I believe that public affairs officials should provide honest and timely information to the public on behalf of the parties that they represent.

137. What is your position on the State Energy Program, and will you commit to continuing its funding?

The Department supports multiple programs that help move energy technologies into the marketplace, including the State Energy Program. One of my goals as Secretary, if confirmed, will be to assess all DOE programs and determine what the most efficient way is to meet the Department's mission. I look forward to learning more about the State Energy Program as part of this process.

138. Will you be receiving scientific briefings on the subjects of nuclear waste and nuclear security?

Yes.

139. Will you be receiving briefings on science and security, and would you be willing to ensure the President is appropriately briefed on those matters?

If confirmed, I will receive briefings on science and security. I am not in a position to commit that the President will be briefed on any particular issues.

140. Please describe the relationship between the federal government and American Indian tribes as it relates to sovereignty.

I look forward to working with the DOE's General Counsel to ensure that all DOE interactions with American Indian tribes are lawful and respectful of their legal rights.

141. What obligations do federal agencies have to formally consult with American Indian tribes?

I look forward to working with the DOE's General Counsel to ensure that all DOE interactions with American Indian tribes are lawful and respectful of their legal rights.

142. What procedures should be followed by the federal government regarding the permitting of infrastructure projects that could potentially impact American Indian tribes and their citizens?

I look forward to working with the DOE's General Counsel to ensure that all DOE interactions with American Indian tribes are lawful and respectful of their legal rights.

143. How do you interpret the United Nations Declaration on the Rights of Indigenous Peoples, especially as it relates to the obligations of the federal government?

I have not been briefed on the United Nations Declaration on the Rights of Indigenous Peoples and am not able to offer any interpretation of the declaration.

144. Do you believe federal funding should be block granted to states to disburse to tribes? Alternatively, should tribes receive their full and fair allocation of federal funding without using the states as a pass-through?

This question lies outside the scope of my responsibilities.

145. What is the role of inter-agency cooperation on American Indian issues?

I look forward to learning more about how the Department of Energy interacts with American Indian communities across the country. If I am confirmed, I commit to receiving a briefing from the Indian Energy Policy and Programs office at DOE.

146. When we met, we discussed subsidies for the fossil fuel industry. You reminded us that you made a campaign promise to "eliminate direct subsidies and tax credits" for energy. Will you commit to working with me to repeal fossil fuel subsidies?

If confirmed, I commit to reviewing all of the existing programs at DOE and ensuring that they are in the best interest of the American people.

147. If you are confirmed, will you undertake a comprehensive review of the need and affordability of current nuclear modernization plans?

I have not been fully briefed on the Department's nuclear modernization plan. If I am confirmed, I will work with the National Nuclear Security Administration to review these plans.

148. Will you alter the pace and scope of nuclear modernization plans if significant taxpayer savings can be achieved while meeting national security requirements?

I am always looking for ways to be a better steward of taxpayer dollars. If there is a more fiscally sustainable way of meeting the nation's nuclear security requirements that the administration and Congress enact, I would look forward to carrying out my duties under the law.

Senator Debbie Stabenow

149. With 76% of companies in the energy sector having trouble finding qualified employees, what role do you think the Department of Energy has in promoting workforce training that helps Americans to gain the skills required for these jobs?

The energy sector is a tremendous opportunity for hardworking Americans to earn well-paid jobs. I look forward to learning more about why 76 percent of energy sector companies are having difficulty in attracting qualified employees, and understanding whether DOE has a role in filling that gap.

150. The International Atomic Energy Agency monitors nuclear activity across the globe. Under the Obama Administration, the Energy Department helped secure the multilateral Joint Comprehensive Plan of Action to dismantle and monitor Iran's nuclear weapons program. Do you support the International Atomic Energy Agency, and would you advise President-elect Trump to maintain U.S. membership and leadership within the IAEA?

Yes. I support the important mission of the IAEA.

151. If confirmed, will you commit to keeping Congress informed of the Energy Department's continued assessments of the implementation and enforcement of Iran's nuclear program, including compliance with the Joint Comprehensive Plan of Action?

I have not had a classified briefing on the JCPOA, but believe monitoring and working with the intelligence agencies to continue assessing Iran's commitments is a very important role for the Department of Energy. If confirmed, I will be briefed on these activities and will keep Congress fully informed of them.

152. Nearly 60% of the Department of Energy's budget is devoted to efforts to ensuring our nuclear security. Keeping nuclear materials out of the hands of terrorists is of the utmost importance to the continued safety and security of our nation. If confirmed, will you commit to supporting robust funding for our National Laboratories that perform critical non-proliferation work by developing technologies used to monitor nuclear activities across the globe?

Yes.

153. Consumers are enjoying the benefits of low cost natural gas. While I am not necessarily opposed to exporting natural gas, I am concerned that excessive LNG exports would drive up the price for consumers and domestic manufacturers, which would seem to be at odds with pledges by President Elect Trump to restore domestic manufacturing. The Natural Gas Act requires the DOE to make a "public interest" assessment as to whether the approval of a LNG export application and the cumulative effect of previous applications impact prices, the

economy and jobs. If confirmed, will you diligently support this existing law as you carry out your duties?

Yes. If confirmed, I will take the DOE's role in assessing whether LNG exports are in the public interest very seriously.

154. Would you support legislation to preclude facilities that generate electricity with commonly recycled paper that is comingled with waste from receiving financing under the Department of Energy's 1703 grant program?

I am committed to working with Congress and to follow the statutes binding the Department of Energy.

Senator Al Franken

155. Just last week, outgoing Secretary Moniz outlined the new DOE “Scientific Integrity Policy.” Among other things, the new policy forbids DOE employees from censoring or altering scientific documents or from pressuring agency scientists or contractors to alter their conclusions. It explicitly protects the right of DOE scientists to share their personal opinions as private citizens, and it gives agency scientists the right to review and correct public materials that are based on their work, both before and after release. Will you continue the new Department of Energy Scientific Integrity Policy and uphold the sanctity of independent scientific inquiry at the agency?

I believe in the importance of independent scientific inquiry. I have not had a chance to study this policy or the previous policy the Obama administration has been using on scientific integrity. I commit to reviewing these policies.

156. More than 2.5 million Americans are now employed in clean energy or energy efficiency jobs, and the vast majority of new energy jobs being created are coming from the clean energy sector. That’s why, I am seriously concerned that just this morning, it was reported that President-elect plans to seriously cut funding to the Department of Energy, including eliminating funding for the Office of Energy Efficiency and Renewable Energy.

a. Do you support this plan?

I have not seen this plan and therefore cannot comment on it.

b. If you are confirmed, will you commit to maintaining or increasing funding for DOE programs that drive the next generation of clean energy innovations like ARPA-E, the Office of Science, and the Office of Energy Efficiency and Renewable Energy?

If I am confirmed, I commit to fully reviewing all aspects of the Department’s budget and working with Congress to ensure an appropriate funding level for these programs.

- c. *Do you support federal tax incentives for renewable energy, like the production tax credit and the investment tax credit?*

I supported state tax incentives like these when I was Governor of Texas. If confirmed, I look forward to reviewing the programs within DOE's authority to promote renewable energy.

157. While you were governor, Texas greatly expanded wind energy by building the transmission lines necessary to move electricity generation from the wind from rural western Texas to the power-hungry cities through Clean Renewable Energy Zones (CREZ).

- a. *Would you support the initiation of a CREZ-style program in the Midwest or other portions of the United States?*

I do not believe in a one size fits all approach to energy policy. However, if states were interested in creating such a program, I would be happy to share my experience from Texas.

- b. *What role should the federal government play to encourage transmission projects that cross state lines?*

If confirmed, I will work with the leadership at FERC and other agencies to find consensus answers to these important questions.

158. Solving climate change will take international cooperation, which is why I believe the Paris climate agreement is so important. With strong U.S. leadership, we were able to get 195 countries—including China and India—to agree to reduce greenhouse gases. I travelled to Paris and met with the outgoing Energy Secretary Ernest Moniz, who was instrumental in this deal. Will you join with Secretary of State Nominee Rex Tillerson and urge President Trump to keep the U.S. in the agreement?

If confirmed, I look forward to being more fully briefed on the Paris agreement.

159. The recent Quadrennial Energy Review identified that our nation's energy infrastructure, whether it be individual power plants or massive interstate power grids, is vulnerable to disruption from a variety of sources.

- a. *How do you plan to improve the resiliency of our energy infrastructure to protect against extreme weather events, cyberattacks, and other potential disruptors?*

The reliability and the physical security of our grid are very important to me and a crucial role of the Department. If confirmed, I am committed to hardening our grid and prioritizing cyber security efforts

- b. During the attack on the Metcalf power substation in California, we heard that a number of large transformers were destroyed. This is a big concern, because large transformers take a long time to manufacture; they are heavy and hard to transport; they must be customized for each substation; and we import most of them from other countries. I think we should all be concerned about this, because if there were a large-scale attack that destroyed many transformers, we would have no way to quickly replace them. We could lose power for months in affected areas. Do you support the creation of a common transformer reserve bank?*

Again, I believe grid security and reliability are critical to the American economy and the Department should play a vital role in supporting that protection. If confirmed, I want to learn from grid security experts within the Department on what steps utilities and transmission companies are undertaking to ensure this security.

160. As we discussed, I believe that energy storage is the next cutting-edge energy technology. Energy storage improves grid reliability, allows increased deployment of renewable energy, and improves system efficiency. Last congress I introduced legislation, the Advancing Grid Storage Act, to increase R&D for energy storage at DOE. This provision was included in the Energy Policy Modernization Act that passed out of the Senate. What role do you see for energy storage in our energy transition, and how will you support its development and implementation?

Energy storage is an important element of our electricity future. If I am confirmed, I will review the Department's ongoing activities in this space and work with Congress to ensure that the Department has appropriate funding to support R&D for energy storage.

161. Americans in my state of Minnesota and elsewhere want the freedom to choose their energy. And I think we can all agree that homegrown clean biofuels are preferable to foreign oil. The Renewable Fuel Standard (RFS) helps provide choice to consumers, diversifies our fuel supply, and reduces our dependence on foreign oil.

- a. Do you support the RFS program as it currently stands?*

I am committed to reviewing America's biofuel policy and understanding how the Department of Energy can provide appropriate support.

- b. Are you committed to supporting and funding DOE research on advanced biofuels?*

I am committed to examining DOE's research agenda with regard to advanced biofuels.

162. Economic development is vital for improving Indian Country, and one area of opportunity is the energy sector. For example, there is significant potential for clean energy development in Indian Country—like wind, solar, and biomass.

a. Will you commit to working with me to boost renewable energy generation on tribal lands, which would bring important funds and jobs to these communities?

Native Americans should be empowered to develop whatever energy resources work best on their lands. Streamlining the approval process for energy infrastructure like pipelines, transmission lines, and other types of energy infrastructure is critical. Agencies should be able to perform reviews and permitting in an expeditious fashion that does not compromise environmental safety or risk. If confirmed, I look forward to working with other agencies, this committee, and the other necessary committees to streamline and improve permitting processes.

b. I have been working to fund the Tribal Energy Loan Guarantee Program (TIELGP), which was included in the Energy Policy Act of 2005 but has never been funded. This program would allow the DOE to guarantee up to 90 percent of the principal and interest of a loan issued to an Indian tribe for energy development. By leveraging federal resources, this program would encourage borrowers to partner with the private sector to develop energy projects. Would you commit to working with me to get this program funded?

I have not been briefed on the Tribal Energy Loan Guarantee Program. If I am confirmed, I will work with Congress to ensure that the Department has appropriate funding for the program.

163. To me promoting energy efficiency is a no-brainer. Energy efficiency ensures that we use our energy resources wisely, saves consumers and businesses money, and reduces our carbon emissions. It increases our global competitiveness and creates jobs manufacturing and retrofitting homes and businesses installing efficiency technologies.

a. Would you maintain funding for DOE programs that help low-income Americans reduce their energy usage like the Weatherization Assistance Program?

Yes. If I am confirmed I will work with Congress to ensure that the Department's funding includes appropriate funding levels for these programs

b. Would you support a federal energy efficiency resource standard similar to the state standards in Texas and Minnesota?

Although the standards in Texas have been instrumental in the growth of wind energy development, I have not been briefed on potential national programs. If I am confirmed, I will review these matters.

164. President Reagan signed legislation granting DOE authority to set minimum efficiency standards for household products. And under President George W. Bush, Congress established a firm schedule for updating these energy-saving standards. These federal standards provide certainty for manufacturers, drive innovation and job creation, and most importantly save consumers and businesses money on their utility bills through reduced energy usage. It is estimated that households save \$500 per year due to the increased efficiency driven by these federal appliance standards.

a. Will you commit to continuing to update federal energy efficiency standards for appliances and equipment?

If confirmed, I will commit to reviewing the program and make sure the program is working to benefit Americans.

b. I understand that there are several rules that are nearly complete but will not be finalized before the current administration leaves office. Will you commit to finalizing these rules?

I will commit to reviewing these rules to make sure they comply with the President-elect's policies.

165. The oil, gas, and coal industries receive billions of dollars in tax subsidies every year. These provisions subsidize the cost of exploring for new reserves and drilling new wells for some the world's most profitable companies. American taxpayers foot this bill. And unlike the incentives for wind and solar, which are in the process of phasing out, tax breaks for fossil fuels are permanent. If you are committed to the government not picking winners and losers in the energy sector, do you oppose the federal subsidies that currently exist for fossil fuels?

If confirmed, I am committed to reviewing the Department of Energy' involvement in this area and to ensuring that a level playing field exists and that taxpayer money is put to its highest and best use.

166. Would you support requiring a Quadrennial Energy Review be undertaken, similar to those already required in law for the Quadrennial Defense Review (DOD), Quadrennial Diplomacy and Development Review (State and USAID), and the Quadrennial Homeland Security Review (DHS)? More generally, do you think it is worthwhile to engage in a periodic, multi-agency, analytical, structured energy review that includes public participation?

I have not been fully briefed on the Quadrennial Energy Review. If confirmed, I will seek more information about the value of the QER, including input from key stakeholders. My understanding is that the staff at DOE who contribute to the QER are some of the best informed energy experts in the country, and I would certainly look to leverage their expertise in any multi-agency energy review process.

167. The DOE has already approved LNG exports equal to a 22 percent increase in demand. There is pending applications to ship to non-free trade countries equal to another 34.5 billion cubic feet per day for a total of 46 percent of US demand. Even with increased production, can you explain how increasing exports of natural gas won't inevitably drive up the price Americans pay to power their factories and heat their homes?

I believe it is a good thing if the rest of the world wants to buy what we sell. I believe that LNG exports could be a huge boost to both American energy producers and our allies. If I am confirmed, I will review LNG export licensing program, as well as the pending license applications to determine whether they are in fact in the public interest and we should move forward.

168. Do you believe that climate change has a cost to society and that this social cost of carbon should be used in regulatory analyses?

The Office of Management and Budget has published guidelines requiring all federal agencies to apply a social cost of carbon analysis to all rulemaking activities. If I am confirmed, I will fully comply with all such requirements.

Senator Joe Manchin III

169. A carbon capture project came online this month in your home state of Texas on schedule and on budget. That's not something you always see with carbon capture or any new technology. That project, Petra Nova, was developed by a private company, but it was successful, in part, because of federal cost-sharing support it received from the DOE.

In the Senate energy bill passed last year, I included a section to update and modernize the Fossil Energy program to reflect the need for DOE's R&D into carbon capture to be more focused on outcomes and commercialization. This section would have increased support for large scale pilots, cost-share demonstrations, and a larger focus on transformational technologies.

Do you agree that the DOE should continue to provide support for viable and deserving carbon capture projects like this one? As Secretary, would you commit to working with me to ensure we have a modern and robustly funded Fossil Energy program?

Although I am familiar with, and support, the Petra Nova project, I have not been fully briefed on the Fossil Energy R&D programs. If I am confirmed, I will fully evaluate this important program and work with you to determine what program direction is appropriate for the Department

170. Governor Perry, as you may know, the Department of Energy just announced a significant investment under the loan program into a fossil fuel project that spans Louisiana and Texas. DOE has offered a \$2 billion loan guarantee to Lake Charles Methanol LLC in Lake Charles, Louisiana.

Once operational, the plant will convert petroleum coke (petcoke) to methanol, and employ carbon capture technology. The carbon will then be transported via pipeline to Texas for use in enhanced oil recovery and is expected to create 300 jobs in Texas. I have long said that enhanced oil recovery (EOR) is a critical part of making large-scale carbon capture projects viable. West Virginia does not have opportunities for EOR like Texas and other states so that remains a challenge for carbon capture projects in my home state.

But, I am encouraged by this project because these advanced fossil loan guarantees are finally being deployed. Yet, there are billions and billions of dollars in unused loan guarantee authority sitting at the Department of Energy. Coal is going to remain a significant part of our energy mix for decades to come. And China and India will continue to use coal - in fact, they have hundreds of gigawatts (GW) of new coal generation planned. I believe that the United States must be a leader in developing, commercializing and exporting carbon capture technology.

Given your experience with state investment funds, how will you, in your capacity as Secretary, ensure that these loan and investment programs function effectively? What can you do to expand these programs to make sure that the United States remains a leader in cutting edge energy technology, while creating jobs in the energy industry? Will you commit today to supporting clean coal technology within the loan program office?

While I understand that the Department has played a role in applied research and made loans available to clean coal technologies, I have not been fully briefed on these programs or the project that they have supported. As I stated in my confirmation hearing, I support an all-of-the-above energy policy and will work very hard to ensure that the American Taxpayers get a fair return on our investments in new technologies if confirmed.

171. My home state is known for coal. But what we're less known for is the work we've done to burn that coal more cleanly. The DOE's fossil energy research is headquartered at the National Energy Technology Laboratory (NETL) in West Virginia, where they've worked with the private sector on the technologies we use to remove particulates and other harmful substances from coal.

Today, they're continuing that work through improving the carbon capture technology we'll need to remove carbon dioxide from coal and natural gas plants and to help fight climate change. Regarding the national labs system, I believe that research and development is critical to the Department of Energy mission and the national lab system is vital to ensuring that we are on the cutting edge of energy technology development.

The Morgantown facility is seen as a mainstay of fossil fuel technology development. Their projects on carbon capture, efficient utilization of coal, shale, cutting edge research such as how to integrate fossil fuel systems with renewable energy – like geothermal – are vital to securing our energy future. In fact, a NETL-managed carbon capture and storage project in Texas (Summit) hit an impressive milestone by successfully capturing and transporting via pipeline, its 3 millionth metric ton of carbon dioxide (CO₂) to be used for enhanced oil recovery (EOR). But the FY2016 Obama budget would have cancelled funds for this project. That is not certainty for the businesses investing in these projects and it is not encouraging for the future of the technology and the folks at our national labs.

Will you work with me to ensure that NETL has the right resources to move forward with its mission as well as pursue facility modernization? Will you commit to visiting NETL and our clean coal technology center at WVU in Morgantown, West Virginia as soon as possible?

I look forward to going with you to visit NETL as soon as I possibly can and learning more about all of the research conducted at the facility.

172. Governor, I get very concerned when I see the number of baseload coal-fired power plants and that have or will close prematurely. I'm thankful many had not been shuttered prior to the polar vortex we experienced a few years ago. But many more have closed since then. Baseload coal units are the type of plants that can run for long periods of time, have a firm fuel supply on-site, and provide critical electrical attributes to the grid that make it operate effectively.

Are you concerned with fuel diversity and keeping baseload plants – especially coal and nuclear that are the backbone of our system – operating? How will you use your role at the Department of Energy to address the challenges that threaten our electric reliability?

I do believe that fuel diversity is important. A variety of energy sources reduces dependence on any one source of energy and promotes healthy competition that benefits Americans. If I am confirmed, I will work to promote an all-of-the-above approach that diversifies America's energy portfolio.

173. The Department of Energy just came out with a jobs report on the state of employment in the energy sector in the United States. The report notes that West Virginia has a high concentration of energy employment, with 37,173 traditional energy workers statewide. 23,509 of those workers were in the fuels sector and nearly 90% of that group is employed in mining and extraction. That number sounds robust but – in fact – since 2011, West Virginia lost more than 35% of its coal jobs. The decline in coal production, has disproportionately affected five counties in southern West Virginia as production in the region plummeted 46% between 2008 and 2014 (Mingo, McDowell, Logan, Wyoming, Boone). Nationally, between April of 2015 and April of 2016, jobs in the coal mining industry declined from 67,600 to 56,600 nationally. That's a loss of nearly 11,000 jobs in one year. And there are 397 fewer coal mines than in 2008 (when coal production was at its highest). West Virginia has long been an energy exporter but the state has been devastated by a combination of market forces and regulatory overreach. Our workforce wants to get back to work and we are looking for good middle-class jobs.

How do you intend to use the Department of Energy to help West Virginia to get our energy workforce back on its feet?

Coal has played an important part of America's electricity generation and I believe it can continue to do so in the future. If confirmed, I look forward to working with you and the committee Members to assess the role DOE can play in getting West Virginia's energy workforce, as well as other affected states, back on their feet.

174. Work on advanced nuclear reactors has had rare bipartisan cooperation on the Hill in recent years. And it has been reported by the Department of Energy, the Nuclear Innovation Alliance, Third Way, and others that there are advantages of researching and developing, and commercializing advanced reactors. For one, advanced reactor designs can substantially reduce the threat of a meltdown compared to current light water reactors. In addition, many new designs are much smaller than their predecessors, meaning they can be built in factories. Their smaller size means they can plug into future micro-grid systems, reducing the need for massive transmission system upgrades. Perhaps the most interesting feature is that the advanced technologies could reduce nuclear waste created by the current light water fleet. Dealing with our existing nuclear waste stockpile remains an unresolved and important issue, and these advanced reactors could be part of the solution. Finally, supporting the development of advanced reactors can give American businesses a leg up in the international

marketplace. Similar to carbon capture technology, we can't sit back and watch investors go to China and India to develop and commercialize advanced reactors.

While we do not have nuclear energy in West Virginia, I'm a cosponsor of the Nuclear Energy Innovation and Modernization Act (NEIMA) because I truly believe in an all of the above energy policy.

I'm interested to hear, what you will do, if confirmed, to work with the bipartisan group of Senators to continue to ensure that DOE is equipped with adequate funding to continue researching and developing these advanced reactor designs.

Nuclear energy is a critical component of America's energy future, and entrepreneurs are developing promising new technologies that could truly spur a renaissance in the United States and around the world. DOE, through the National Labs complex, maintains unique government facilities that can assist in the development of advanced nuclear energy technologies. The GAIN initiative provides the potential for public-private partnerships to thrive in the future. If I am confirmed, I look forward to learning more about how DOE can support advanced nuclear reactor development.

Senator Martin Heinrich

175. I am pleased to learn of your desire to assure there will be continuity in leadership at NNSA as there was during every previous transition. Looking forward, if you are confirmed, will you work expeditiously to identify and forward nominations of highly qualified individuals for each of the four senior management positions at NNSA?

Yes.

177. Thank for your testimony that our national labs are the envy of the world. New Mexico is home to both Los Alamos and Sandia National Labs. Every time I visit the labs I'm amazed at the quality of the cutting edge science and engineering work and the major contributions every day to our national defense and energy security. Will you make it a priority to come to New Mexico and see these labs firsthand early in your tenure?

Yes.

176. One of the more serious situations you are inheriting is the cleanup of the legacy radioactive waste from the cold war. At Los Alamos the estimate is it will take 20 years and up to \$4 billion to finish the cleanup effort. As secretary will you assure the legacy cleanup efforts continue to be adequately funded to meet the commitments made to the local communities and will you make it a priority to nominate a well-qualified manager to be the assistant secretary for environmental management?

Yes, I believe the legacy waste cleanup should be a top priority for the Department and will work to find a qualified manager to be the assistant secretary for Environmental Management and Performance if I am confirmed. The DOE has legal obligations and a moral responsibility to clean up these sites and protect the health and safety of communities nearby. We need to get these sites cleaned up better, faster, and more affordably.

178. WIPP is the nation's only deep geologic repository for transuranic wastes from weapons program and is an integral part of the cleanup effort. WIPP was closed for nearly three years as a result of two serious accidents, and just last month limited operation was restored. The investigations into the accidents cited lack of proper management and oversight as one of the root causes. Can you assure the people of New Mexico the safe operation and proper maintenance of WIPP will be a budget and management priority?

Yes. If confirmed, I will ensure that WIPP will be properly maintained and operated with both strict and transparent oversight.

179. For over 20 years, through three administrations, the nation has been committed to leading-edge scientific and technical capabilities to sustain the nation's nuclear deterrent in the absence of nuclear testing as a standard for the world. Do you support continuing the stockpile stewardship program that for 20 years has ensured the safety, security and reliability of the nuclear deterrent?

I believe this is a critical function of the agency and I look forward to working with NNSA to maintain a proper stockpile stewardship program. If confirmed, I look forward to getting fully briefed on our nuclear weapons capabilities and working with this committee to determine the best way to certify the readiness of our stockpile.

180. I understand as governor you were interested in hosting temporary storage of high-level commercial spent fuel in Texas. In 2012, the Blue Ribbon Commission's report on nuclear waste made very clear that the only path forward is through a consent-based approach to siting both temporary storage and permanent disposal facilities for high-level waste. Will you continue the policy of consent-based siting of all nuclear waste facilities?

If I am confirmed, I will thoroughly review the Commission's recommendations and examine all approaches to nuclear waste facilities.

181. The Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise (Augustine-Mies Panel) released its final report in 2014. The panel found the current structure with a "separately-organized" NNSA is fundamentally flawed and that "significant and wide-reaching reform is needed." The panel also concluded the legislation establishing NNSA has "resulted in overlapping DOE and NNSA headquarters staffs and blurred ownership and accountability." If you are confirmed, will you work to find ways to improve the governance of the nuclear security enterprise within the Department of Energy?

Nuclear security may indeed be one of the biggest issues facing our world today. It is a responsibility that I take very seriously. If confirmed, I look forward to being fully briefed on NNSA governance and will seek to find ways to improve the current functioning of NNSA within DOE consistent with the NNSA Act.

182. Over the last four years, Secretary Moniz worked closely with the national laboratories to improve the relationship and develop trust; will you personally continue the effort to develop a true working

partnership between DOE and the national laboratories? What are your ideas to further improve that relationship?

If confirmed, I will build upon Secretary Moniz's valuable work in creating a better working relationship between the agency and the labs. This will be critical to building upon the success of the national labs and ensuring they remain the top facilities in the world. Working with the committee, I hope to develop new and innovative pathways that allow for greater collaboration between the labs and the private sector.

183. Both Sandia and Los Alamos National Laboratories plan to hire many hundreds of new employees in FY17, primarily backfilling for retirements and voluntary separations. A large percentage of the positions are for scientists and engineers. These new hires are critical to the labs' ability to maintain critical national security program schedules. Will you permit the national laboratories to maintain the staffing levels they require, within the available budget, without imposition of an arbitrary hiring freeze?

I believe maintaining the proper staffing levels is important to ensuring that our national labs remain the best in the world and continue to attract the best talent.

184. Over the past decade or so, the national security laboratories have increased science and engineering work to support government agencies beyond the DOE. For the labs in my State, especially Sandia National Laboratories, this work for other agencies is critical to both technical innovation and recruiting talented new staff. Will you support and advocate for the labs to continue to be a science and engineering resource for the whole of government?

Yes.

185. The CREZ in Texas is widely recognized as a success in spurring deployment of cost-effective wind power. Do you think CREZ could serve as a model at the national level to help modernize our nation's electrical infrastructure and promote clean, economical energy for more Americans?

While I fully support the CREZ program, I have not been fully briefed on the best path forward to modernize our electrical infrastructure. If confirmed, I will work with the experts at DOE and FERC to determine the appropriate steps that we need to take in order to ensure that our electrical infrastructure is modernized and capable of serving customers with electricity generated by deployed wind power.

186. In your testimony you state you "believe the climate is changing" and you will make decisions to address climate change, "based on sound science and also take into account the economic

impact.” Based on your experience reducing emissions of carbon and other pollutants in Texas, do you agree that producing clean energy can also be economical?

Yes.

187. Over its history, the Department of Energy has funded long-term R&D that has led to significant breakthroughs in energy technology for enhanced oil and gas recovery, energy storage development, solar energy systems, wind turbine blade design, and advanced nuclear energy concepts. Do you support a continuing role for DOE and its laboratories in energy science and technology research?

Yes. I stated during the hearing, I believe basic R&D conducted at the best laboratories in the world will lead to incredible scientific discoveries and innovative breakthroughs. I believe energy science and technology research is an essential role at the agency.

188. Last year I had a chance to tour the office buildings at NNSA’s Albuquerque complex which houses about 1,200 NNSA employees. The complex was largely built as dormitories for the Air Force back in 1951 and doesn’t meet minimum standards. A replacement building is now on the drawing board. Do you support continuing funding for a new office building to provide basic office space for the 1,200 DOE employees who work there every day?

If confirmed, I will review the conditions of the office buildings at the Albuquerque complex and work with you and the Congress to ensure appropriate funding levels for the complex and, if appropriate, review options for modernizing that facility.

189. Do you agree technology transfer should be a priority mission for DOE’s national laboratories and will you support efforts to expand tech transfer from DOE’s laboratories, including the NNSA labs and projects such as Sandia Labs’ C3 (Center for Collaboration and Commercialization)?

Because the national labs conduct the best research in the world, I believe it is necessary to provide a pathway and an opportunity for that research and technology to reach the market, which will generate tremendous economic opportunities. If confirmed, I will ensure that the labs will generate the innovations of the future in a way in which we cannot even predict.

190. The reliability of the electric power system affects nearly every sector of the U.S. economy. In the last Congress, Senator Risch and I introduced legislation to authorize the secretary of energy to protect and restore the power grid in the event of a national emergency. The provision passed Congress and was signed into law by President Obama. However, the threat of cyber-attacks on the grid present one of the greatest national security concerns. Will you make enhanced grid security a priority? What additional authority does the secretary of energy or FERC need to help protect the U.S. grid from cyber-attack?

I believe that cyber-attacks are an important national security concern. I will make enhanced grid security a priority if confirmed.

Without classified briefings from the cybersecurity experts at DOE, I cannot say what additional authority the Secretary or FERC need. If I am confirmed, I look forward to working cooperatively with other agencies like FERC on grid security.

191. As recent events have shown, our nation's electric grid is aging and under threat from potential cyber-attacks, extreme weather and even direct physical attacks. At the same time, we are bringing more distributed generation resources online and introducing advanced control systems and energy storage. What role do you see the Department of Energy and its National Labs playing in the critical task of modernizing and securing the electric grid?

I agree this task is absolutely critical. The DOE can play a lead role in bolstering our nation's cyber capabilities and defending our nation's electric grid from all types of threats. If confirmed, I will commit to learning more about what areas need to be modernized and how we can best secure our electric infrastructure.

192. Last week DOE Released the Second Annual National Energy Employment Analysis. The report again found an opportunity for job growth in many energy sectors, though 73 percent of all energy-related employers surveyed found it difficult or very difficult to hire new employees with needed skills. Last Congress I worked with Rep. Bobby Rush on energy-workforce legislation at DOE to promote education and training of underrepresented groups (minorities, women and veterans) and displaced and unemployed energy and manufacturing workers in order to increase the number of skilled candidates trained to work in these related fields. Do you agree DOE can play a lead role in helping prepare the workforce for the nation's energy future?

Yes.

193. Secretary Moniz proposed terminating the MOx program in South Carolina and finding instead an alternative means of permanently disposing of the 34 metric tons of surplus weapons-grade plutonium. One option could include permanent disposal in WIPP. Will you consider options for permanent disposal of the excess plutonium that might cost less than MOx?

I have not been fully briefed on the MOX program. If confirmed, I will conduct a full review of the MOX program and options for ensure that the program is run in an efficient and cost-effective manner.

194. If confirmed, is it your intention to terminate all climate-related research and climate modeling at universities and the national laboratories?

No.

195. NNSA currently provides funding to re-establish a domestic commercial supply of the radioactive isotope molybdenum-99 used for medical diagnostic procedures. Will you continue to support this important program?

If I am confirmed, I will conduct a thorough review of the Department's efforts to re-establish a domestic commercial supply of molybdenum-99 and work with the Committee and Congress to ensure an appropriate funding level for the program

196. The president-elect said on Twitter the nation "must greatly strengthen and expand its nuclear capability?" Is he proposing designing a new generation of nuclear weapons or something else?

I cannot speculate as to what the President-elect was referring to in his tweet. However, if confirmed, I will ensure that NNSA stays true to its mission of maintaining and protecting the nuclear weapons stockpile.

197. Do you support continuing full set-aside funding for the Lab Directed Research and Development Program (LDRD), which is a valuable tool to develop advanced technologies and recruit and retain top scientists at the national laboratories, especially the NNSA labs?

If confirmed, I will work with this Committee and Congress to ensure appropriate funding levels for LDRD.

198. President-elect Trump's "America's Infrastructure First" policy includes support for a modern and reliable electricity grid and the need for private investment. The Department of Energy plays an important role in supporting public-private partnerships for new transmission projects under Sec. 1222 of the 2005 Energy Policy Act signed by President Bush. As secretary, will you continue to use DoE's authority to encourage private sector investment in transmission projects that provide low cost energy and create American jobs?

Yes. If confirmed, I commit to encouraging private sector investment in low cost energy infrastructure projects that deliver economic benefits and deliver affordable energy to households across the country.

199. In regard to DOE's Office of Tribal Energy, historically, Native American voices have been ignored in national policies. The Dakota Access Pipeline is one recent example. How will you ensure that Tribal viewpoints are heard in decisions affecting your department? Will you continue support for the Office of Tribal Energy within the department?

Tribal viewpoints should be heard during the entire process when it comes to energy development which affects their territory.

200. The Department of Energy in the past has provided funding to Native American communities to advance their energy efficiency and renewable energy projects. Will you continue to support these initiatives? How will you direct funds in Indian Country?

I believe Native Americans should have the ability to develop all energy sources including renewables. If confirmed, I will work to ensure the funds to Indian Country are directed to best suit their needs.

201. I want to ask you about fusion energy. When the science and engineering is proven, fusion will provide cheap, available energy on demand without any long-lived radiation or fear of meltdown. Recent advances in high temperature superconductors, advanced liquid metal alloys, and computer plasma modeling mean that we may be rapidly approaching a breakthrough. We could be closer than anyone expects. I am concerned, however, that the breakthrough will happen in other countries – China, Russia, Japan, and Germany all have more advanced fusion experiments than the United States. Do you agree that it is important that American scientists lead the effort that will create a new industry?

Given the complex and uncertain nature of the future of fusion research, I look forward to much more substantial briefings on fusion research issues as well as working with the Committee to make wise choices to move us forward if confirmed.

202. DOE's SunShot Initiative currently provides vital support for the solar industry's efforts to help thousands of American military veterans make the successful transition from military service to good-paying solar jobs through quality training and hands-on experience. Will you continue DOE's support for the highly successful Solar Ready Vets efforts?

I believe the applied research efforts have worked to bring down the cost of alternative energy sources. I look forward to learning more about the program's success if I am confirmed.

203. In April 2016, Secretary Moniz and his Israeli counterpart signed updated and expanded MOU for the U.S.-Israel Energy Cooperation Program. Specifically identified in the accord is expanded cooperation in both conventional and renewable energy production; smart grid technologies; protection of energy and water infrastructure against physical, cyber and electromagnetic attack; and areas within the energy-water nexus. If confirmed, will you continue DOE's commitment to strengthening U.S.-Israel energy cooperation? Are there specific areas of cooperation you believe the U.S. and Israel can and should expand?

Israel is an important U.S. ally and I am firmly committed to strengthening U.S.-Israel energy cooperation. This is beneficial to the U.S. economy and to our geopolitical interests in a crucial area of the world. I look forward to working with Congress on this shared commitment and to

learning more about areas where additional cooperation might be mutually beneficial for the U.S. and Israel if I am confirmed.

204. *The U.S.-Israel Strategic Partnership Act of 2014 authorized a United States-Israel Energy Center to promote binational collaboration on energy and water issues. The center is designed to bring together American and Israeli researchers, academics, companies and the governments in the pursuit of joint research initiatives, technology development and policy collaboration. Do you plan to continue DOE's work toward establishing the Energy Center of Excellence?*

I have not been fully briefed on the specifics of the Energy Center of Excellence. If confirmed, I will thoroughly review the program and work with this Committee and Congress to ensure appropriate program funding.

205. *I understand Israel has been one of the leaders in the development of cyber security technologies. Would you support incorporating the protection of critical infrastructure into the U.S.-Israel energy dialogue?*

Yes.

206. *You cited the billion dollar Petra Nova plant near Houston in your testimony. As you know the project received about \$190 million in ARRA funding from DOE. Is Petra Nova an example of a federal-private partnership you are will encourage at DOE for demonstration projects of advanced energy technologies?*

Yes.

207. *Secretary Moniz implemented eight crosscutting activities to foster better collaboration within DOE and remove organizational "stove pipes." The crosscuts cover important aspects of national security and energy policy including energy-water nexus, exascale computing, grid modernization, supercritical CO2 and cybersecurity. As a manager, do you see value in supporting such cross-cutting initiatives to help improve coordination within DOE and the national laboratories?*

I do believe in cross-cutting initiatives. For example, if confirmed, I would like to ensure the labs are not duplicating their efforts but working together to efficiently achieve the desired outcome.

Senator Mazie K. Hirono

208. You noted in your testimony the importance of ensuring the reliability of our grid. The state of Hawaii is unique in that each of the six major Hawaiian islands operates as its own isolated grid. Consequently, the State faces a number of unique challenges as it seeks to incorporate more intermittent renewable energy into its power supply. In this past Congress, I introduced a number of bills that would improve upon the Department of Energy's ability to spur grid modernization and energy storage. In recent years, the Department has also been a key partner with the State as it seeks to modernize its electric grid. What steps will you take at the Department of Energy to help to modernize and improve the electric grid, and can non-contiguous territories and states like Hawaii and Alaska count on DOE's continued support to improve electricity transmission and distribution technology? Do you agree energy storage is a critical component of a resilient, reliable grid, and what steps will you take to move forward on energy storage if you are confirmed?

While I am aware of the Department's Grid Modernization Initiative (GMI) and Grid Modernization Multi-Year Program Plan (MYPP), I have not been fully briefed on either the initiative or the program plan. If confirmed, I will ensure that the Department is focused on modernizing and improving the electric grid.

Energy storage holds great promise as a critical component of a resilient, reliable grid. If I am confirmed, I will support the Department's research & development into moving forward on energy storage.

209. As you describe in your testimony, the Department of Energy is charged with ensuring the security and reliability of our nation's electric grid. As Secretary, what if any reforms would you make to improve upon the Department's ability to ensure the reliability and resiliency of our nation's electric grid in the event of cyberattacks or natural disasters?

If I am confirmed, ensuring the reliability and resiliency of our nation's electric grid will be a high priority for me. Once I am fully briefed on how we can best ensure that the grid is safe in the face of cyberattacks or natural disasters.

210. As you know, the Department of Energy is a science-focused agency, and there are several advisory boards and councils that provide the Secretary with advice and scientific recommendations. Will you continue to extend the charters of these advisory boards and councils, and what areas will you direct them to focus on?

If confirmed, I will review the advisory boards and councils to make sure they continue to provide the expertise and critical thinking on a wide array of energy and scientific research issues.

211. Countries and businesses around the world are acting to be at the front of the clean energy race. Here at home ARPA-E has developed a highly effective, fast-paced model for clean energy innovation. What is your view of the appropriate level of funding for ARPA-E compared to FY 2016 levels, and how do you propose to ensure that the U.S. continues to reap economic benefits from the global transition to clean energy?

As I stated in my confirmation hearing, I strongly believe that the scientific research that is conducted and funded by the Department is absolutely critical. If I am confirmed, I will work closely with this Committee and the Congress to ensure appropriate funding levels for the ARPA-E program.

212. DOE's stated mission is to "ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions." As Secretary, how do you plan to carry out the Department's mission? What will the Department look like in, say 2 years, compared to now? What parts of the Department do you seek to change or enhance?

Yes, if I am to be confirmed I will be committed to fulfilling DOE's mission. I look forward to getting fully briefed on the where the department currently stands and where improvements can be made to benefit the lives of all Americans.

Senator Catherine Cortez Masto

213. In 2011, at the Presidential Debate in Las Vegas, you came out in favor of consent based siting in regards to Yucca Mountain, arguing that the people of Nevada should have the final say. This year, Senator Heller and I introduced the Nuclear Waste Informed Consent Act to ensure the Secretary of Energy receives consent from any state considered for a nuclear waste repository before proceeding with development. Do you still support consent based siting for Yucca Mountain?

As I discussed during my confirmation hearing, I believe that solving the issues surrounding the long-term storage of spent nuclear fuel and high-level radioactive waste is absolutely critical. I also stated that it will be very important that all voices in the debate on whether the federal government should develop a long-term storage repository are heard. If I am confirmed, I will conduct a thorough review of these issues, listen to all of the affected state governments, local governments and stakeholders, and develop a strategy for moving the country forward on this issue.

214. You have voiced support for state and local governments, arguing that they are better at legislating than “one-size-fits-all” solutions from Washington. I have heard from Nevadans across the state, including Governor Brian Sandoval, and Las Vegas Mayor Carolyn Goodman, that they do not want Yucca to move forward. Governor Sandoval said in his State of the State address this year, “any attempt to resurrect the ill-conceived Yucca Mountain project will be met with relentless opposition, and maximum resources.” Given Nevadans’ long-standing refusal to accept nuclear waste, can you assure the people of Nevada, Senator Heller, Governor Sandoval, and myself that Yucca Mountain is dead?

As I said in the hearing I believe that hearing from all sides of any contentious issue is critical in developing a strategy for resolving that issue. If I am confirmed, I will conduct a thorough review of these issues, listen to all of the affected state governments, local governments and stakeholders, and develop a strategy for moving the country forward on this issue.

215. In November 2015, an electricity outage occurred at a National Nuclear Security Administration’s site, which cascaded and caused a significant blackout in surrounding areas. If confirmed, will you or your staff immediately visit the site and initiate a review of the facts surrounding the underlying cause of the blackout? If so, will you or your staff also brief the Committee on your visit and review within 90 days of your confirmation?

If confirmed, I will ensure that DOE staff visit the site and will initiate a review of the facts surrounding the underlying cause of the blackout as soon as possible.



January 13, 2017

Members of the United States Senate:

On behalf of more than two million heating, ventilation, air conditioning and refrigeration (HVACR) professionals, including contractors, distributors, engineers, and manufacturers, the undersigned associations urge you to vote in support of Governor Rick Perry to serve as the Secretary of the U.S. Department of Energy (DOE).

The HVACR industry is responsible for manufacturing, distributing, and installing the products that consume 40% of the energy used in U.S. homes and buildings. We know first-hand how burdensome poorly thought out regulatory policies can be to industry. We are eager to work closely with Governor Perry, who has proven that he is committed to creating more robust business environments and to growing the economy.

As the Governor of Texas, Governor Perry helped create nearly 1.5 million new jobs. We are encouraged by his success. We are committed to working with him on energy and workforce development issues that will create the highly skilled jobs that our industry desperately needs.

Governor Perry stands ready to reinvigorate the Energy Department and will strengthen the HVACR industry by promoting a balanced and transparent regulatory policy that will carry us through the 21st Century. He will be a stalwart champion for entrepreneurship and American jobs.

Please support the confirmation of Governor Rick Perry to serve as the Secretary of Energy.

Sincerely,

ACCA - Air Conditioning Contractors of America
AHRI - Air-Conditioning, Heating & Refrigeration Institute
HARDI - Heating, Air-Conditioning & Refrigeration Distributors International
PHCC - Plumbing-Heating-Cooling Contractors – National Association

**CITIZENS FOR
RESPONSIBLE
ENERGY
SOLUTIONS**

The Honorable Lisa Murkowski
Chairwoman, Senate Committee on
Energy and Natural Resources
304 Dirksen Senate Building
Washington, DC 20510

Dear Chairwoman Murkowski:

On behalf of Citizens for Responsible Energy Solutions (CRES), I am writing to express our strong support for your efforts to move the nominations of Representative Ryan Zinke to serve as the Secretary of the Interior and former Texas Governor Rick Perry for Secretary of Energy. CRES supports both nominations and urges that they be favorably reported out by Republicans serving on the Energy and Natural Resources Committee.

CRES is a 501(c)4 non-profit organization of Republicans who advocate for comprehensive, responsible and free-market solutions to maximize our nation's clean energy potential. There are numerous opportunities for leaders in Congress and the Administration to advance innovative, clean energy solutions that will create high-paying jobs here at home, secure domestic energy independence, while promoting good stewardship of our environment. To that end, CRES believes it is important for the Trump Administration to have these cabinet members in place as soon as possible.

Rep. Zinke has indicated that he takes the stewardship of our nation's federal lands seriously, while understanding the reliance of many rural communities and tribes on such lands. During his nomination hearing, he acknowledged that our climate is changing, and that human activity is contributing to this change. CRES is appreciative that, while he discussed an all-of-the-above energy policy, Rep. Zinke expressed his support for wind and solar development on public lands.

Likewise, in his remarks, former Governor Perry cited Texas' leadership in wind energy production. He specifically stated that he would "advocate and promote American energy in all forms, and that includes renewables." He also indicated that he is "a major proponent of maintaining American leadership in the area of scientific inquiry." CRES is heartened by these commitments about clean energy and energy research and development, and supports Governor Perry's confirmation.

Again, thank you for your leadership of the Energy and Natural Resources Committee, and your efforts to move these nominations forward.

Sincerely,



James Dozier
Executive Director

cc: Republican Members, Senate Committee
on Energy and Natural Resources



TEXAS TECH UNIVERSITY SYSTEM

Robert Duncan, *Chancellor*

January 13, 2017

The Honorable Lisa Murkowski
Chairman, U.S. Senate Committee on Energy and Natural Resources
304 Dirksen Senate Building
Washington, DC 20510

RE: Rick Perry, Secretary of Energy Recommendation

Dear Chairman Murkowski:

It is with great honor that I recommend my friend and former Texas Governor Rick Perry for the position of Secretary of Energy. His ability and commitment to lead will be an asset to the U.S. Department of Energy, the new administration and our nation.

I have known and worked with Governor Perry since he served in the Texas House of Representatives. It was there that he earned his reputation as a hard worker and legislator who's not afraid to make the hard choices for the right reasons. His work on the state budget during this time was resolute and showed the first signs of a leader willing to dig deep and work hard to find solutions.

As the Texas Commissioner of Agriculture, Governor Perry worked tirelessly to promote the sale of goods from the state and establish Texas as a critical player on the international stage regarding food and fiber. He had a vision for the state that included support for the everyday farmer from his small hometown to the promotion of a multibillion-dollar industry with global reach.

I was privileged to serve under Governor Perry in the Texas Senate while he served as Lieutenant Governor. His leadership in the Senate came at a time of great transition and change for the state. His ability to negotiate tough solutions with members of both parties was critical. As he moved into the Governor's office, he had amassed a wealth of knowledge and experience that would be applied to his role as CEO of the state.

During his tenure as Governor, he was determined to improve the infrastructure and sustainability of Texas. He had great ideas and implemented plans for our state's transportation, business development and water needs. Governor Perry was also committed to energy generation and development from wind and other sources in the state, and helped make key advancements by supporting new energy technologies through the Texas Emerging Technology Fund.

Under Governor Perry's leadership, the fund invested \$8.4 million with Texas Tech University to develop the top wind energy and innovation program in the country. That initial award attracted over \$70 million in federal, state and private investment; helped develop the nation's first Ph.D. in wind engineering; and created the foremost workforce development curriculum used to train the next generation of wind energy workforce throughout the industry. In partnership with National Nuclear

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The Honorable Lisa Murkowski
January 13, 2017

Security Administration laboratories, a real-world, energy-production facility was developed and has increased knowledge in designing improved windfarms that enhance energy production and efficiency.

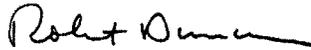
Additionally, the fund awarded Texas Tech University and industry partners \$13 million to modernize an aging electric grid infrastructure. This investment attracted over \$100 million in industry matches and promises to lead innovations related to cyber security, microgrid, solar, battery storage and other renewable energy technologies. This state-of-the-art microgrid and battery facility supports cutting-edge production, storage and distribution of energy with the caliber to test and strengthen the physical and cyber security of our national grid system.

In a state historically known for its oil and gas production, Texas has become the nation's biggest and fastest growing renewable energy pioneer thanks to Governor Perry's vision and ingenuity. His courage to chart new energy territories has led Texas to the country's No. 1 spot in wind-powered generation and capacity with more than 16,000 megawatts. This strategic focus has diversified the state's energy portfolio and bolstered Texas' leading position in overall energy production and energy potential.

These are just a few examples of many where Rick Perry has been a champion for energy and economic development. Throughout his career, Governor Perry's leadership has helped forge new public-private and federal-lab partnerships, increased commercialization of inventions that benefit society, and improved the security and energy resilience of the U.S. He has always had a bold vision and been skilled at navigating that vision to successful completion.

I know these skills and leadership will only continue to serve the U.S. Department of Energy and our nation well. Rick Perry is the kind of person who knows how to lead, and I am honored to support his nomination.

Respectfully,



Robert Duncan

From: [Kathleen Hirano](#)
To: [forthecord \(Energy\)](#)
Subject: Energy Secretary confirmation hearing for Rick Perry (1/19/2017)
Date: Thursday, January 19, 2017 2:11:52 AM

To the members of the Senate Committee on Energy and Natural Resources:

I am a scientist working at a biotechnology company. I have spent my career in labs at the intersection of basic science and industry, an intersection that would not have been possible without the forward-looking funding from the Department of Energy. As government funding enabled the development of computing and the internet, I believe it is currently enabling a new era of biotechnology. Much like the information age has fundamentally changed the way humans interact, the biotechnology age will present a fundamental shift in the way we derive value from our natural resources.

Because I have seen first-hand the development of scientific ideas from discovery research to application (for example, see CRISPR-Cas9), I believe that basic science is the key to American innovation and must be nurtured. And because the DOE is the single largest supporter of basic research in the physical sciences in the U.S., it is imperative that the Energy Secretary at the very least respects the long arc of basic science research and has a vision of the future industries that will keep America technologically competitive.

I am also indebted to the DOE for another personal reason. Both my parents spent their careers working at a national lab funded by the DOE and DOD. In fact, they met there in the hiring room. My mother was an engineer at a time when her teachers couldn't believe she could be best in her class. My father grew up poor in rural Hawaii, but followed his love of cars from working in a garage through college. As adults they chose to serve their country by applying their intelligence and expertise to matters of national defense. These matters of national defense are primary in the department's origins in the Manhattan Project and are primary to this day. An educated and nuanced understanding of nuclear weapons, energy and policy is therefore mandatory for the position of Energy Secretary.

I am deeply concerned about Governor Rick Perry's credentials to oversee the Department of Energy. I do not believe he has the experience or expertise to lead the department in the areas outlined above, but would like to be convinced otherwise. My questions are best summarized by the staff of Science Magazine, the premier peer-reviewed journal for academic science: <http://www.sciencemag.org/news/2017/01/10-questions-rick-perry-trumps-pick-energy-secretary>. The text of the article is copied at the bottom of this email. I urge you to present these issues to Governor Perry during the confirmation hearing tomorrow and demand clear answers.

Thank you for your time and for serving the American people.

Sincerely,

Kathleen Hirano
970 Vermont Street, Apt. 7
Oakland, CA 94610

"Ten questions for Rick Perry, Trump's pick for energy secretary"

By Science News Staff

Jan. 18, 2017

What is the role of science at DOE?

Recent presidents from both parties have used science as a way to connect DOE's myriad activities, both administratively and by appointing Cabinet secretaries with advanced science and engineering degrees. Perry doesn't have that kind of training. But if confirmed he will play a role in picking the people who run DOE's research programs. One key decision: finding a successor to Franklin Orr, the outgoing undersecretary for science and energy.

What areas do you plan to emphasize within DOE's Office of Science?

The agency's \$5.1 billion Office of Science is the single largest funder of basic research in the physical sciences in the federal government. It is also the nation's leading builder of large scientific facilities; the 10 labs funded by the office host x-ray synchrotrons, neutron sources, atom smashers, and other user facilities. These machines serve thousands of scientists from universities, industry, and other federal research agencies in fields ranging from particle physics to structural biology.

How will you decide whether the United States should remain in the ITER fusion energy project?

ITER is a multinational project to prove that generating energy by fusing hydrogen isotopes together at temperatures exceeding those in the center of the sun is scientifically feasible. But the project, currently under construction in southern France, is at least a decade behind schedule and could cost three times original estimates.

If a U.S. domestic project were similarly so far out of control, Congress or the White House likely would have killed it long ago. But the United States has only a 9% stake in ITER—matched by China, India, Japan, Russia, and South Korea—whereas the European Union, as host, is footing 45% of the bill and is determined to see it through.

Does the United States need to resume testing of nuclear weapons, and what reforms are needed to ensure the safety and reliability of the nuclear stockpile?

The last U.S. nuclear test occurred in 1992. Since then, DOE's three weapons labs have used supercomputer simulations to ensure the safety and reliability of the stockpile, along with replacing components—such as heavy water in thermonuclear bombs—that decay or degrade. The Obama administration has lowered the number of nuclear warhead types to 12, from 23 in 1990, and there are plans to take another 50% cut over the next decade. A Trump tweet that the United States "must greatly strengthen and expand its nuclear capability until such time as the world comes to its senses regarding nukes" was later clarified to be a reference to modernization, which has been a pillar of Obama's nuclear strategy. But it is unclear whether that modernization will require a resumption of testing. The United States signed the Comprehensive Nuclear-Test Ban Treaty 20 years ago but has not ratified it.

What is DOE's role in fostering exascale computing?

The United States has dominated the field of high-performance computing for decades, which has helped the nation maintain its leadership in science and technology. But China now has the world's two fastest supercomputers, and three countries (China, Japan, France) have promised by 2020 to unveil an exascale machine—one that can perform a billion billion operations per second, more than 10 times more powerful than today's leader. Those announcements forced DOE to shorten its timeline from 2022 to 2021, but the agency has struggled to obtain the desired funding from Congress. Supercomputing advances push the boundaries of technology development. That allows the companies and countries setting the pace to reap the commercial rewards of their sizeable investments in chips and software.

Is ARPA-E working, and should its funding be increased?

The Advanced Research Projects Agency-Energy (ARPA-E) was created in 2007 and funded its first projects in 2009. Modeled after the Department of Defense's ARPA, ARPA-E aims to turn basic research into budding energy technologies that private industry will then develop. Republicans once saw that role as unnecessary government intervention in the free market, so one concern from scientists is whether Perry may rekindle that debate. As with so much in Washington, D.C., money may provide the answer; specifically, whether the Trump administration requests more or less than ARPA-E's current \$291 million budget.

Will you rebuild nuclear cooperation with China and resuscitate agreements with Russia?

In recent years, scientists in U.S. nuclear labs have had very little interaction with their peers in those two countries. A 1999 report by a House committee detailed allegations that China had stolen design information on advanced U.S. thermonuclear weapons, and that Chinese agents had penetrated U.S. labs for decades. Although China denied the allegations, the charges poisoned the well of collaboration. Joint projects with Russian nuclear scientists began to ebb soon after President Vladimir Putin came to power in 2000, and reached a nadir last October when Russia suspended an agreement with the United States on nuclear R&D cooperation and terminated another on retooling Russian research reactors to no longer run on weapons-grade uranium fuel.

U.S. nuclear scientists are working with their Chinese and Russian counterparts to implement the Iranian nuclear deal, which faces an uncertain future. The political predilections of Trump and his Cabinet augur continued improvement of scientific ties with Russia. And science could also become a counterweight to diplomatic battles with China over trade if the new administration wants to find common ground with the Asian power.

What role should DOE play in fostering a greener U.S. transportation system?

Car magazines are filled with articles about driverless cars, battery-powered vehicles, and climate-friendly fuels made from corn or algae. But the reality is that nearly all of the more than 250 million cars and trucks on the road today guzzle gasoline refined from oil, and don't do it very efficiently.

The Obama administration made a concerted effort to transform the U.S. transportation system with battery startups, regulations that ramp up the use of cellulosic ethanol and other biofuels, and a near doubling of fuel efficiency requirements for light-duty cars and trucks. The impact of those policies is just beginning to be felt, although the more than half a million all-electric

and gas-electric hybrids on U.S. roads is a good start. However, the continued greening of U.S. transportation will likely require scientific advancements in engine technology, lighter cars, and rules requiring their use. Trump has yet to signal whether his administration plans to continue driving in this direction.

Should the government reopen Yucca Mountain, or do you favor the current consent-based approach to finding a long-term storage site for high-level nuclear waste?

Congress decided in 1987 that the nation's high-level nuclear waste from commercial reactors and other sources should be buried deep beneath Yucca Mountain in Nevada. But efforts to build and open the repository have run afoul of political opposition and technical obstacles. A presidential commission formed by the Obama administration concluded that Yucca was doomed, and that the nation needed a new siting process—involving a wide range of stakeholders, including state governments and advocacy and industry groups—to forge a workable deal. That process has yet to get off the ground. But supporters are hoping the retirement of one of the project's most powerful adversaries—Senator Harry Reid (D-NV)—and Republican control of the White House will breathe new life into the project.

Should DOE spend more to help companies improve existing technology to extract and burn fossil fuels?

Environmental groups, climate activists, and some Democrats in Congress have long complained that federal agencies, and DOE in particular, have spent too much money supporting the fossil fuel industry, even as it racked up decades of impressive profits. But fossil fuel advocates note that DOE support has been critical to industry advances, including developing the technology behind fracking, offshore drilling, and cleaner-burning coal and natural gas power plants. The Obama administration, as part of its all-of-the-above energy strategy, increased DOE's support for nonfossil fuels, but Congress made sure the agency also stayed in the fossil fuel game. Will Perry and the Trump administration shift the balance back again, or argue that the fossil fuel industry is mature enough to pay its own way?

HISPANIC LEADERSHIP FUND

the values, our community, our nation

January 19, 2017

Hon. Lisa Murkowski, Chairwoman
Senate Committee on Energy and
Natural Resources
304 Dirksen Senate Office Building
Washington, D.C. 20510

Hon. Maria Cantwell, Ranking Member
Senate Committee on Energy and
Natural Resources
304 Dirksen Senate Building
Washington, DC 20510

Dear Chairman Alexander and Ranking Member Murray:

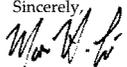
The Hispanic Leadership Fund is, a non-partisan advocacy organization dedicated to strengthening working families by promoting common-sense public policy solutions that foster individual liberty, opportunity, and prosperity. As president of HLF, I write to express our support for Gov. Rick Perry for Secretary of Energy.

Governor Perry served as a three-term governor of Texas, which is widely considered as "The Energy State." Texas has been well-known for energy production for the past century since it is a major source of oil and gas comes from. It also has lignite deposits, a large and growing wind industry, and two major nuclear power plants.

During his time as Governor, Texas natural gas production increased by 50% while its oil production soared by 260%, returning to levels not seen since the 1970s. During Perry's last five years as governor, thriving oil and gas exploration and extraction helped Texas to lead the nation in new job creation. Gov. Perry also expanded the use of clean energy and made Texas a leader in that subsector. If confirmed, Governor Perry will continue to promote the use of natural gas and other American energy resources that will decrease emissions, cut the price of energy and grow our economic output.

With his record of creating 2.2 million jobs in Texas and experience in energy policy, we believe that Governor Perry is the right fit for this cabinet position. We respectfully urge the committee to take our statement into consideration and vote to confirm Governor Rick Perry as Energy Secretary.

Sincerely,



Mario H. Lopez
President

Ripchensky, Darla (Energy)

From: Liz Kennedy <lizkennedy1a@gmail.com>
Sent: Friday, January 20, 2017 1:06 PM
To: fortherecord (Energy)
Subject: Nomination of Rick Perry

Hello,

I am deeply concerned and urge you to oppose the nomination of Rick Perry to head The Department of Energy. He is a climate change denier and I believe he will destroy all of the work the Obama presidency has done getting this country off of fossil fuels and getting us investing and evolving towards renewable energy systems.

Thank you for your attention.

Sincerely,

Liz Kennedy
Los Angeles, CA 90034

--

"You must be the change you wish to see in the world." - Mahatma Gandhi



UNIVERSITY OF HOUSTON SYSTEM
UNIVERSITY OF HOUSTON

RENU KHATOR
Chancellor and President

January 13, 2017

The Honorable Lisa Murkowski
Chairperson, Senate Committee on Energy and Natural Resources
709 Hart Senate Office Building
Washington, D.C. 20510

Dear Chairperson Murkowski:

Please accept this as an indication of my strong support for Governor Rick Perry for the position of United State Secretary of Energy. Respectfully, I encourage you to also support his nomination and move to swiftly confirm his appointment.

Nine years ago, I was hired to lead the University of Houston System as Chancellor and the University of Houston as President by our Board of Regents, appointed by Governor Perry. Our board made it my mission as Chancellor and President to transform the University of Houston into a Tier One Research university. With the support of Governor Perry, our state government established mechanisms to help reach that goal. Within only two years, the University of Houston was designated a Carnegie Tier One university, making the University of Houston one of only three public universities in Texas to receive the designation. Governor Perry's legacy of support for research investment continues to pay dividends. Last year, four more universities in Texas, Texas Tech University, the University of North Texas, the University of Texas at Dallas, and the University of Texas at Arlington also received this important designation. Our efforts to aggressively expand the scientific research within our institutions in order to promote scientific discovery and spur technology transfer has resulted in more than a 50% increase in research expenditures at the University of Houston, now totaling more than \$150 million per year in FY2016 and thanks, in part, to the leadership of Governor Perry.

As the leader of the nation's largest producer of oil, gas, and wind energy among all states, Governor Perry has been a pioneering supporter of oil and gas energy when the world was struggling with high prices in hydrocarbons. Between 2003 and 2005, he was central in the creation of the Texas Energy Center that evolved to RPSEA – bringing \$500 million in federal funds and a similar investment from private corporate funds to enhance the R&D for the exploration and production of oil and gas. As one of his last acts as Governor, he funded the Subsea Systems Institute at the University of Houston in

order to establish a neutral third party institute to ensure safe, reliable oil and gas exploration and production in the Gulf of Mexico to prevent any further accidents or potential spills.

Perry has also been a pioneer in supporting the growth of wind power, making the state of Texas the largest wind producer in the country. Moreover, he has been at the forefront of developing the critical infrastructure in order to bring power from West Texas wind farms to the urban centers. Additionally, he has been a strong supporter of offshore wind power and has encouraged the development of critical R&D capabilities at the leading academic institutions in our state leading to the possible deployment of the first demonstration in the Gulf of Mexico.

Governor Perry was also instrumental in bringing a leading edge Superconductor Roll-to-Roll manufacturing facility to the University of Houston by encouraging development of public-private partnership through the Texas Emerging Technology Fund, which now houses one third of the nation's high temperature superconductor wire manufacturing capabilities. This technology will be transformative and impact the national economy to the tune of \$40 billion by 2030.

During his fourteen-year tenure as governor, Texas experienced unprecedented and unmatched economic growth, a direct result of Governor Perry's incredible ability to lead the executive office of the great state of Texas. It is for the reasons enumerated in this letter that I am confident that Governor Perry will prove to be an exceptional leader of the Department of Energy and once again encourage your favorable action on his nomination.

Sincerely,

A handwritten signature in black ink that reads "Renu Khator". The signature is written in a cursive, slightly slanted style.

Renu Khator

National Association of Home Builders

1201 15th Street NW
Washington, DC 20005

T 800 368 5242
F 202 266 8400

www.nahb.org



January 18, 2017

The Honorable Lisa Murkowski
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, DC 20515

The Honorable Maria Cantwell
Ranking Member, Committee on Energy
and Natural Resources
U.S. Senate
Washington, DC 20515

Dear Chairman Murkowski and Ranking Member Cantwell,

On behalf of the 140,000 members of the National Association of Home Builders (NAHB), I am writing to express NAHB's strong support for the nomination of the Honorable Rick Perry to be the Secretary of Energy. We believe that Governor Perry will restore common sense to the regulatory process by improving transparency and ensuring that regulations are product-neutral and cost-effective.

Energy efficiency is an important, common goal, but regulations must also consider the cost impacts to homebuyers. For too long, the Department of Energy (DOE) has pushed for aggressive code requirements for new home construction that unfairly favor specific products and technologies, while increasing homebuyer costs but providing only negligible energy savings. And for every \$1,000 increase in the cost of a home, about 153,000 families are priced out of the market for an average new home.

It is difficult for home builders to keep up with the national demand for housing under the current regulatory regime. Regulations account for up to 25% of the price of a single-family home. These costs are passed on to homebuyers, negatively impacting housing affordability, which can often position American families further away from the dream of homeownership. We need practical regulations that strike a balance between promoting energy efficiency allowing our businesses to thrive.

Governor Perry has a long history of supporting sensible regulation and backing an all-of-the-above approach to energy to guarantee consumer choice. As Governor of Texas, he advanced policies promoting traditional sources as well as renewable technologies – all of which provided affordable, reliable energy solutions for his constituents. We are confident that he has the ability to lead DOE. He will respect the proper rulemaking process, provide

transparency with any regulatory action, and ensure that financial impacts to American families are respected.

For these reasons, we respectfully urge members of the Senate Energy and Natural Resources Committee to support Governor Rick Perry's nomination. Thank you for considering our views.

Best regards,

A handwritten signature in black ink, appearing to read "Granger MacDonald". The signature is fluid and cursive, with a large initial "G" and "M".

Granger MacDonald
2017 NAHB Chairman of the Board

cc: Senate Committee on Energy and Natural Resources

Ripchensky, Darla (Energy)

From: Patricia Peterman <trishiapeterman@gmail.com>
Sent: Thursday, January 19, 2017 3:35 PM
To: fortherecord (Energy)
Subject: Opposition to Rick Perry appointment as head of department of energy

I, Patricia Peterman, 5402 Canyon River Road , Missoula, Montana oppose Rick Perry becoming United States' next energy secretary. In a *New York Times* report, Perry believed the role would help him champion the country's oil and gas industry. In fact, the job specification (and the majority of the department's budget) actually centers on the nation's \$20 billion nuclear stockpile and overseeing national laboratories that form a major part of the government's science remit. If approved, Perry has to learn nuclear management, science and technology investment. Perry's 1972 Bachelor of Science degree in animal science is insufficient. His predecessor, Ernest Moniz, was chairman at MIT and directed the institutes linear accelerator. Before Moniz, the secretary was Steven Chu -- a Nobel Prize winner. If approved by the Senate, Perry would oversee the US' nuclear stockpile, as well as being in charge of refurbishing and maintaining it. The country's nuclear weapons program is currently in the middle of developing a new weapons system that will connect all its missiles via a secure network. This will cost over a trillion dollars. Meanwhile, the department attempting to protect its political impartiality, with new guidelines to ensure employees can continue their research without any political influence. According to the guidelines, scientists will be able to express their opinion, get the opportunity to review Department statements about their work, and that officials should not and will not ask scientists to tailor work to fit particular conclusions. The new regulations would require Rick Perry to appoint an independent Scientific Integrity Official to handle any complaints. It should be noted that the Department recently refused a request from Trump to name employees that have attended climate change meetings. It said it will provide publicly available information, but will keep staffers' names under wraps to "respect the professional and scientific integrity and independence".

The DoE also has a role in funding new energy ideas and the companies that bring them forward. Perry opposes renewable energy and has sued the EPA for regulating carbon emissions. His interests do not lie with the American people, his interests lie with large oil companies -- from whom he has accepted millions of dollars in donations. I urge Montana senator Daines and all members of the committee to vote no on this unqualified candidate.

Congressmen, + WOMEN

RICK PERRY

engaged in a criminal conspiracy to obstruct justice, by way of TX HB 1817, (79th) in order to protect a known frequent and confessed violator of the Texas Engineering Practice Act, Technip Offshore Engineering Inc., from the PRESCRIBED enforcement actions for their confessed offenses.

Documentation of this fact is attached.

He is therefore unfit to hold any public office.

David Lee Studer P.E.

David Lee Studer, P.E.

HOUSTON TEXAS
17 JANUARY 2017



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DAVID LEE STUDER PE

Attachments:

1. **12 August 2003** The Texas Board of Professional Engineers opens an investigation into the wholesale violation of safety regulations by Technip Offshore Engineering, Inc. **File no. H- 17887. Violations confirmed** by drawings surrendered to the Board and Technip V.P Chris Harding's written confession. (Copy Available)
2. **02 February 2004** Letter to Rick Perry notifying him that the Board which he controls is in violation of the very law they are charged with enforcing, stamped received and marked up by his staff. internal copies sent to Perry advisor **Logan Spence** and General Council.
3. **23 September 2004** Letter to Texas Attorney General Greg Abbott explaining the Texas Engineering Practice Act to him.
4. **23 December 2004** Texas Attorney General Opinion No. GA-0287 explaining to the Board that Technip is NOT exempt from the Law, as they insist they are.
5. **27 December 2004** Internal Board e-mail initiating the criminal conspiracy to obstruct justice by changing the Law to protect frequent offender Technip.

[At this point in time, further delay of enforcement action against Technip was a violation of the Law, in and of itself, by the Board.]

6. **29 December 2004** Internal Board e-mail suggesting possible schemes for obstructing justice in the matter of Technip's confessed violations of the Law.
7. **23 March 2005** Dale Beebe Farrow Lying Under Sworn Oath to the TX House Licensing Committee as to the reasons for the changes to the Law prescribed in HB 1817 and to ensure passage of it, in order to protect frequent offender Technip. (Full video available.)
8. **19 May 2005** Letter from Dale Beebe Farrow citing HB 1817 as justification for closing the Board's investigation of frequent offender Technip **11 days PRIOR TO Rick Perry signing the bill into law**, and THREE MONTHS prior to the change becoming law!
9. **27 May 2005** Telephone records of calls to Rick Perry's office advising that HB 1817 was the result of perjury and a criminal conspiracy to obstruct justice, and to advise Perry not to sign the bill, but instead veto it.
10. **20 June 2005** After being advised by Logan Spence that HB 1817 was accomplished by Perjury for the purpose of protecting a frequent and confessed violator of the Law, Rick Perry signed it.
11. **06 January 2006** Sgt. Mary Chin eloquently summarizes the evidence in the last paragraph of the first page of her letter.
12. **06 February 2006** Kevin Bailey demands an accounting from the Board for their criminal conduct. Then, "Rick Perry Shut him Down." Per his secretary.
13. **07 March 2006** The conspiracy is ignored by the federal government.

Jan 18 17 11:41a

p.4

Attachment 2
- 4 of 2

AOE-Act. TOE
Chris's Drive
A-1
P-1

MEMORANDUM
Texas Board of Professional Engineers

From: Chris S. Kimbrell

Date: August 12, 2003

To: ~~Cliff~~
Charlie
Victoria

Subject: Case Action Memo: Technip Offshore Engineering, Inc.
Our File H-17887

SUMMARY OF ALLEGATION:

This inquiry was staff initiated based upon information received that suggested engineering design plans were prepared by this company's Texas licensed professional engineers and released to their clients without engineer seals, and that other employees with this company who are not licensed engineers are preparing and issuing engineering designs and stress analyses reports. Information was also received that the licensed engineers in this company believe they are "exempt" from the Board's sealing rules.

Information provided pertained to three projects in particular; (1) the Mad Dog Keel Ball and Joint, (2) the Mad Dog Deck Stopper Frame Drawing, and (3) the Horn Mountain Keel Ball and Joint.

Based upon this information, we requested the company to provide us copies of plans/documents pertaining to the above-mentioned projects and the identity of the Texas licensed professional engineers involved with these projects.

SUMMARY OF RESPONSE:

On August 8, 2003, we received a written response from Mr. Chris Harding, Senior Vice President of this company (see atch) wherein he claims that the (1) Mad Dog Keel Ball and Joint, were specifications passed on to the company ABB who was responsible for the design and construction drawings. (2) the Mad Dog Deck Stopper Frame Drawing were signed by engineers that are not licensed, and the latest revision was signed by a professional engineer but not sealed (copy of drawing attached). (3) the Horn Mountain Drawing, had the involvement of four licensed professional engineers; however, the drawings were not sealed (copy of drawing attached).

Mr. Harding advised that they have an internal Board of Review regarding issues pertaining to the Texas Engineering Practice Act, but the issues identified in this matter were never brought to the attention of the internal board.

BOARD RULE VIOLATED: 131.166

SUPPORTING EVIDENCE: Mr. Harding's letter.

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Jan 18 17 11:42a

p.5

~~Attachment 2~~
~~2 of 2~~

A-1
P-2

SUGGESTED ACTION: Open "D" cases on the engineers or close since it appears they have learned a lesson and it appears they may renew their internal Board of Review.

Chris

I would not be opposed to closing this file without opening separate "D" cases if the company will provide a written policy statement it will distribute to all its PEs or evidence that it held a training session attended by all its PEs addressing sealing rules and expectations along with copies of the plans in questions that have been signed and sealed by the responsible PE and re-issued to the client. However, whatever the final decision on action, I would think that Victoria should review and approve since the complainant is a frequent caller to her.

Cliff 8-12-03

I agree with the proposed voluntary compliance with the obligation that Technip provide the specified documentation. Please forward to Victoria for final approval. CBP 8/14/03

Victoria

Technip has an internal PE review board that insures compliance on sealing requirements. I have visited their site and addressed their engineers on practice a sealing issues (I believe David has visited there also). I wanted their internal board to address this issue and submit a compliance plan rather than trying to open D cases on individual engineers. I think their internal process is the appropriate way to deal with these issues
(CBP 8/21/03)

— so, are we saying for future
— similar cases, people can also
— create certain internal review
— process and not be penalized
— for plans sealed by non-engineers?
— Open D cases on
— 2 PEs. (Victoria 8/21/03)

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1 of 1
 LOGAN SPENCE
 L. Spence
 At. Regulatory Licensing
 David Studer P.E.
 9310 Meadow Branch Court
 Houston, TX 77095
 02 February 2004
 A-2
 P-1
 General Counsel

Texas Governor Rick Perry
 1100 San Jacinto
 Austin, Texas 78701

Governor Perry,

A dangerous and foolish legal precedent is about to be set due to a grossly defective advisory opinion issued (apparently verbally) to the Texas Board of Professional Engineers by a representative of the Texas Attorney Generals Office.

Morrison
 Toomey
 Nelson
 B. Noble
 P. Wilson

NOTE: Hard copy sent to R. Anderson.

I strongly recommend you advise your appointee, Mr. James R. Nichols, P.E., that he, the Board, and its staff conduct the business and enforcement actions of the Board in compliance with the law of this state, as it was written by the legislature, and not as the respondent in this investigation wishes that it had been.

It appears to me that the Board and or it's staff are not in compliance with the very law which the board was established to enforce.

The attached documents are for you and your staff's reference in this matter.

If you have any questions, you may contact me at:

Home: 281-345-7207
 Work: 281-233-5227
 Pager: 281-308-2119

Best Regards

David Studer P.E. 02 FEB 2004

David Studer P.E.

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Jan 18 17 11:43a

p.7

A-3
P-1

David Studer P.E.
9310 Meadow Branch Court
Houston, TX 77095
23 September 2004

Greg Abbott
Texas Attorney General
Box 12548
Austin, Texas 78711
PH: 512-463-2100
FAX: 512-476-2653

Mr. Abbott,

It has come to my attention that The Texas Board of Professional Engineers, Enforcement Committee, has been waiting on an opinion from your office, for at least five months, regarding the **ENGINEERING** of hardware which is constructed or deployed outside this State.

My bound copy of the Texas Engineering Practice Act, Rev 11-11-2001, as well as the copy that I printed from the web site on 19 Sep 2003 have identical Sections 15.(c), Licenses, Seals :

"This Act applies to all engineering practiced in this state that is not exempted under this Act."

None of the exemptions authorized in Section 20 of the Act exempts the **ENGINEERING** of any hardware based upon the geographic location of the construction or deployment of said hardware.

The act also calls for licensed engineers and engineering firms to comply with all aspects of the act, and for the board to strictly and fairly enforce the Act.

I hope that this information is of assistance to you and your staff in divining "Legislative Intent" in this matter.

If you have any questions, you may contact me at:

Home: 281-345-7207
Work: 832-741-7207

Best Regards



David Studer P.E.

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Attachment 5
1 of 2

A-4
P-1



ATTORNEY GENERAL OF TEXAS
GREG ABBOTT

December 23, 2004

<p>Ms. Dale B. Farrow, P.E. Executive Director Texas Board of Professional Engineers 1917 IH-35 South Austin, Texas 78741</p>	<p>Opinion No. GA-0287 Re: Whether the seal of a professional engineer licensed in Texas may be placed on engineering plans, specifications, and other documents relating to projects not to be constructed in Texas (R.Q. 0244-GA)</p>
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Dear Ms. Farrow:

On behalf of the Texas Board of Professional Engineers (the "Board"), the former Acting Executive Director inquired about the requirement that a licensed engineer place his seal on the engineering documents he issues. ⁽¹⁾ See Tex. Occ. Code Ann. § 1001.401 (Vernon 2004). The Board wishes to know whether the sealing requirement applies only to engineering documents related to projects designed and constructed in Texas. See Request Letter, *supra* note 1, at 1.

Pursuant to the Texas Engineering Practice Act (the "Act"), Tex. Occ. Code Ann. ch. 1001 (Vernon 2004), the Board regulates the practice of engineering and licenses engineers. See *id.* §§ 1001.201-202, 301-308. The Act provides that a licensee, on receiving a license, "shall obtain a seal in a design authorized by the board, showing the license holder's name and the legend 'Licensed Professional Engineer' or 'Registered Professional Engineer.'" *Id.* § 1001.401(a). ⁽²⁾ A license holder's seal must appear on a "plan, specification, plat, or report issued" by the license holder. *Id.* § 1001.401(b). See also *id.* § 1001.401(c) (if the license of the person named on the seal has expired or has been suspended or revoked, the seal may not be placed on a document). The sealing requirement assures the user of the engineering product that the professional engineer named on the seal has performed or directly supervised the work. See 29 Tex. Reg. 1803, 1804 (2004), adopted 29 Tex. Reg. 4878 (2004) (codified at 22 Tex. Admin. Code § 137.33(a)) (Tex. Bd. Of Prof'l Engineers, Seal Specifications).

The Board reads section 1001.401(b) as pertaining only to sealing documents for projects designed and constructed in Texas. "We believe that the Texas seal should only be placed on Texas projects and if projects are to be constructed in other jurisdictions, a license should be obtained in that jurisdiction." Request Letter, *supra* note 1, at 2. A license holder has complained to the Board that if a project is designed in Texas for construction in another state, country, or international waters, the Texas license holder must affix a Texas seal to his design plans. See *id.* In this case, an international client requested a Texas firm to design an offshore oil platform, to be fabricated in Norway and erected in international waters. See *id.*

Whether an engineer licensed in Texas may practice in another jurisdiction without being licensed there depends upon the other jurisdiction's laws. Generally, each state requires licensing under its laws to practice engineering in that state. See Steven G. M. Stein, Construction Law, ¶ 1.01[1][b], at 1-15 (Matthew Bender & Co. ed., June 1998). Some states, however, provide limited exemptions from their licensing requirements for an engineer licensed in another state. For example, New York allows a person licensed as an engineer in another state to practice as a professional engineer during the time his application for licensure in New York is pending before the State Board for Engineering and Land Surveying. See N.Y. Educ. Law § 7208(b) (McKinney 2001). See also 63 Pa. Cons. Stat. § 152(b) (West 1996) (nonresident qualified to practice engineering in state of residence may practice in Pennsylvania for up to thirty days aggregate per year, if standards of his state at least equal those of Pennsylvania); Tex. Occ. Code Ann. § 1001.310(b) (Vernon 2004) (Board "may issue a provisional license to an applicant currently licensed in another jurisdiction who seeks a license in this state"). Where the law of another state includes such exceptions, a Texas licensee in effect practices under his Texas license in that state.

Section 1001.401 provides that "[a] plan, specification, plat, or report issued by a license holder must include

-Attachment 5
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the license holder's seal placed on the document." Tex. Occ. Code Ann. § 1001.401(b) (Vernon 2004). The requirement applies to plans, specifications, plats, and reports issued by an engineer licensed under Texas law, without excepting any such documents. A court will not write exceptions into a statute to make it inapplicable in circumstances not mentioned in the statute. See *Pub. Util. Comm'n of Tex. v. Cofer*, 754 S.W.2d 121, 124 (Tex. 1988); *Jefferson County Drainage Dist. No. 6 v. Gary*, 362 S.W.2d 305, 307-08 (Tex. 1962). Section 1001.401 applies to engineering documents prepared under the authority of a Texas license to practice engineering, not merely to documents for projects designed and constructed in Texas. The seal of a professional engineer licensed in Texas must be placed on all plans, specifications, plats, and reports he issues under authority of his Texas license, even if the project will not be constructed in Texas. Whether documents prepared and sealed by a Texas engineer under authority of his Texas engineering license may legally be used for construction in another state or country depends upon the laws of that jurisdiction.

SUMMARY

A professional engineer licensed in Texas must place his seal on engineering plans, specifications, plats, and reports prepared under authority of his Texas license, even if the project will not be constructed in Texas. Whether documents prepared and sealed by an engineer under authority of his Texas license may legally be used for construction in another state or country depends upon the laws of that jurisdiction.

Very truly yours,



GREG ABBOTT
Attorney General of Texas

BARRY MCBEE
First Assistant Attorney General

DON R. WILLET
Deputy Attorney General for Legal Counsel

NANCY S. FULLER
Chair, Opinion Committee

Susan L. Garrison
Assistant Attorney General, Opinion Committee

Footnotes

1. Letter from Paul D. Cook, Acting Executive Director, Texas Board of Professional Engineers, to Honorable Greg Abbott, Texas Attorney General (June 28, 2004) (on file with Opinion Committee, also available at <http://www.oag.state.tx.us>) [hereinafter Request Letter].

2. The term "Registered Professional Engineer" derives from a former version of the Engineering Practice Act. When the Act was adopted in 1937, the credential issued to engineers was a "certificate of registration." See Act of May 18, 1937, 45th Leg., R.S., ch. 404, §§ 12, 15, 1937 Tex. Gen. Laws 816, 820-21. A 1997 enactment updated the Act's language by replacing "register" and "registration" with "licensing" and its variants. See Act of May 13, 1997, 75th Leg., R.S., ch. 344, §§ 1-2, 30, 1997 Tex. Gen. Laws 1462, 1463, 1473.

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<http://www.oag.state.tx.us/opinions/op50abbott/ga-0287.htm>

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Cliff Bond

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P-1

From: Paul Cook
Sent: Monday, December 27, 2008 9:59 AM
To: Dale Beale, Paul Cook, Cliff Bond
Cc: Cliff Bond
Subject: AG Opinion of sealing work in another jurisdiction

We need to check this AG opinion with Steve Sumner in our meeting tomorrow. I think we should look at the AG opinion to see if it says that a Texas P.E. should only seal projects that are constructed or to be utilized in Texas. I think the opinion is correct based on the wording in our law but it does not take into consideration that other jurisdictions could take disciplinary action against our license holder for the illegal practice of engineering in that jurisdiction. The only defense our license holder would have is that the work was completed in Texas by a Texas P.E. and in accordance with our Act and this AG opinion. I'm not sure another jurisdiction would accept that (we probably wouldn't) when the Texas license holder would, I hope, be aware that the project was to be constructed in another state and the codes and loadings in that state were used in the development of the designs.

This opinion would also require a Texas license holder to seal with the Texas seal, every design sheet performed by them no matter if the license holder is licensed in another state and the project is to be constructed in that state.
Example: If I am licensed in Louisiana and the project is to be built in Louisiana but I am residing in Houston, I must put my Texas and Louisiana seal on each sheet of the plans and also on the specifications for the project.

Just my thoughts
Paul

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P-1

H-17887-Memo

MEMORANDUM
Texas Board of Professional Engineers

From: Clifton A. Bond

Date: December 28, 2003

CC: Paul / Dale

Subject: Technip Offshore Engineering, Inc. (Technip), Our File H-17887

We have received the AG Opinion in answer to issues raised in this case about whether Texas licensed PEs are required to place their Texas engineer seal on documents for structures to be constructed outside the state of Texas. I personally do not agree with the decision. It seems very clear to me that Section 1001.004(b)(2) clearly states that one of the purposes of the Act, which includes requirements on sealing documents, is to enable the state (Texas, since it is the Texas Engineering Practice Act) and the public (the public of Texas I would think) to identify persons authorized to practice engineering in this state (again, Texas). Seems ludicrous to me that if an individual is licensed in Texas as a PE, he/she must affix their Texas engineer seal to documents for projects that are being constructed outside the state of Texas. I see no language in the opinion that confines the opined requirement to only those Texas licensed PEs who reside in Texas so, following that opinion I guess if an individual is licensed in Texas as a PE, is living in for instance Ohio, is licensed in Ohio, is designing something that will be constructed in Ohio, he/she must put his/her Texas engineer seal on engineering documents. If that is true, I suggest we could do nothing else but run sealing violation cases for years to come because I'm extremely confident that that is not happening.

Enough of my soap box, since the opinion has come in we need to decide what we want to do about this pending case. Mr. David Studer, P.E., the complainant and former employee of Technip, presented a variety of allegations regarding engineering being done on offshore drilling platforms and systems by Technip. I believe the investigation, to include a meeting held with Technip representatives in December 2003 with Charlie and myself, addressed them all and Mr. Studer was advised of our intent to close the case and in keeping with Victoria's policy given an opportunity to provide additional information. Of course, Mr. Studer did not agree and as a result, the AG opinion was sought on sealing requirements.

Well, according to the AG Opinion, our statements to Technip that Texas PEs are not required to affix their Texas engineer seal to engineering documents for projects being constructed outside the state of Texas, and by not doing so would likely prevent any potential allegations of the unlawful practice of engineering in another jurisdiction; but, that they should ensure those PEs are operating with the practice laws of the respective jurisdiction, may not have been completely correct.

However, I still do not believe we should open any "D" cases against any Texas PEs which as I recall would include Mr. Studer, for not affixing their Texas seal to documents for the project(s) at issue in this file, which were constructed in international waters for a British company. It would be my suggestion that we close the case contrary to the wishes of Mr. Studer, with a letter to Technip advising it that contrary to

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previous opinion expressed by us, the AG has opined that Texas PEs working in Texas must affix their Texas seal to engineering documents in compliance with our sealing rules regardless of where the project is being constructed; that due to previous apparent erroneous opinions we are closing this case and will not open disciplinary cases on any PE for sealing issues in connection with the project(s) at issue in this case; and provide a warning that in the future until such time as the law may be changed it will be expected that its Texas PEs will comply with the seal rules as opined by the AG.

Please review and provide your comments on an intended course of action.

Thanks,
Cliff

The alternate CIP described would be my preferred approach; however, this AIG option may require me to act in this case and others like it. If we can win the state claim, that let's discuss this one.

Cliff 1/3/05

Let's discuss this case with the ED. We have been advising licensing holder not to seal projects in other states and this AG opinion came in after the case was initiated. May need to bring this before the Eng Committee.

- Alternate Situation - Can we have Copy of Verification
Report - Report

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P-1

Dale Farrow Perjury



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**Dale Beebe Farrow on Video Lying Under Sworn Oath to the TX House
Licensing Committee**

**as to the reasons for the changes to the Law prescribed in HB 1817
and to ensure passage of it.**

23 March 2005

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JAMES R. NICHOLS, P.E., CHAIR
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HIGHLAND VILLAGE

SHANNON K. McCLENDON
DRIPPING SPRINGS

GERRY E. PATE, P.E.
HOUSTON

ROBERT M. SWEAZY, Ph.D., P.E.
LUBBOCK

DALE BEEBE FARRROW, P.E.
EXECUTIVE DIRECTOR

Attachment 5
1 of 2

TEXAS BOARD OF PROFESSIONAL ENGINEERS

May 19, 2005

A-8
P-1

Mr. David Studer, P.E.
9310 Meadow Branch Ct.
Houston, TX 77095

Dear Mr. Studer:

RE: Technip Offshore Engineering (TOE)
Our File H-17887

The purpose of this correspondence is to inform you that we have obtained and reviewed a copy of your October 16, 2002 memorandum and its attachments which you initially submitted to Mr. Kerry Kirkland, P.E., and Mr. Grayum Davis, P.E., and copies of subsequent communications between you and representatives from our agency concerning your October 16, 2002 memorandum. We have also interviewed past and current employees of the TOE, to include Messrs. Kirkland, Davis, Mike Harville and Emil Talamo, P.E., regarding the issues you raised in your October 16, 2002 memorandum and in our April 5, 2005 meeting. As a result of our reviews and interviews, we have not found any new information nor documentation that would lead to a differing opinion than what was expressed to you by Ms. Barbara Owens, Esq., in her letter to you dated November 8, 2002 (copy enclosed) which is that there is insufficient evidence to support your allegations that TOE employees, either in the drafting or engineering departments, have violated the Texas Engineering Practice Act (Act).

Further, the legislature currently in session has passed House Bill 1817 which amends Section 1001.401(b) of the Act prescribing that Texas licensed professional engineers are only required to affix their Texas engineer seal to engineering documents pertaining to projects to be constructed or used in the State of Texas. This amendment is consistent with our agency's opinion expressed to you in our letter dated January 21, 2004 (copy enclosed).

NOT RETROACTIVE!

FURTHER PAGE REDACTED

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1917 H-35 SOUTH AUSTIN, TEXAS 78741 • (512) 440-7723
FAX NUMBERS: LICENSING (512) 442-1414 • COMPLIANCE (512) 440-5715 • ADMINISTRATIVE (512) 440-0417 • FINANCE (512) 440-2931
E-MAIL: peboard@tbpce.state.tx.us HOME PAGE: <http://www.tbpce.state.tx.us>

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DAVID STUDER
3310 MEADOW BRANCH CT
HOUSTON TX 77055-2752

Page 3 of 3
Account Number 281 945-7207 532 0
Billing Date Jan 11, 2006
Customer? 1 888 633-7714
Invoice Number 05314913

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P-1

[Redacted]

A portion of your bill is provided as a service to the company identified above. Please review all charges appearing in this section. If you have any questions or concerns, call the telephone number shown above.

[Redacted]

Itemized Calls - Continued

No.	Date	Time	Place Called	Number	Code	Min.	Rate
35.5-27	1052A		WHEELING IL	612 463-1975	D	1.8	.00
37.5-27	1141A		AUSTIN TX	612 463-2000	D	1.0	.00
38.5-27	1142A		AUSTIN TX	612 463-2000	D	3.0	.00
39.5-27	1148A		AUSTIN TX	612 463-2000	D	13.0	.00
Total Itemized Calls							.00

Key to Calling Codes
D Day

Total Sprint Connect Charges

21.02

print Invoice Summary

print Account 636520438 thru 05 27 Invoice 0 65314913

Item	Description	Amount
1.	CARRIER UNIVERSAL SERVICE CHARGE	1.06
2.	TEXAS UNIVERSAL SERVICE	.23
3.	IN-STATE ACCESS RECOVERY	1.89
4.	CARRIER COST RECOVERY	.09
5.	DISBURSEMENT	.22
6.	MONTHLY RECHARGING CHARGE	15.00
7.	EQUALIZATION SURCHARGE	.11
Total Other Charges		18.60

taxes and Surcharges

8.	Federal Tax	.55
9.	State and Local Taxes	1.22
10.	Other Surcharges	1.80
Total Taxes and Surcharges		3.57

Itemized Calls

No.	Date	Time	Place Called	Number	Code	Min.	Rate
10.5-20	243P		ESSEX VA		D	1.0	.00
11.5-20	1807A		WHEELING IL		D	4.0	.00
12.5-04	1057A		WHEELING IL		D	2.0	.00
13.5-05	1130A		SMARANTONIO TX		D	7.0	.00
14.5-05	418P		SMARANTONIO TX		D	3.0	.00
15.5-05	448P		SMARANTONIO TX		D	1.0	.00
16.5-05	497P		SMARANTONIO TX		D	1.0	.00
17.5-05	118P		LAKE WALES FL		D	1.0	.00
18.5-12	1643A		WHEELING IL		D	9.0	.00
19.5-12	1217P		WHEELING IL	202 805-3177	D	1.0	.00
20.5-12	205P		ATLANTA GA		D	39.0	.00
21.5-12	225P		EMERSON CA		D	2.0	.00
22.5-12	423P		EMERSON CA		D	10.0	.00
23.5-10	448P		DALLAS TX		D	1.0	.00
24.5-16	308A		FORT WORTH TX		D	1.0	.00
25.5-16	382P		LAKE WALES FL		D	11.0	.00
26.5-03	738A		LAKE WALES FL		D	1.0	.00
27.5-24	127P		WHEELING IL		D	1.0	.00
28.5-23	1902A		SMARANTONIO TX		D	5.2	.00
29.5-25	1023A		LAKE WALES FL		D	1.0	.00
30.5-25	1625A		WHEELING IL		D	7.0	.00
31.5-27	844A		AUSTIN TX	612 463-0122	D	1.0	.00
32.5-27	850A		AUSTIN TX	612 463-0661	D	1.0	.00
33.5-27	851A		AUSTIN TX	612 463-0107	D	5.0	.00
34.5-27	835A		AUSTIN TX	612 463-2000	D	13.0	.00
35.5-27	1045A		AUSTIN TX	612 463-1975	H	1.0	.00

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Legislative Reference Libr... X

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	Conferred in public hearing	04/28/2005
S	Testimony taken in committee	04/28/2005
S	Reported favorably as substituted	05/02/2005
S	Recommended for local & uncontested calendar	05/02/2005
S	Committee report printed and distributed	05/02/2005
S	Placed on local & uncontested calendar	05/10/2005
S	Laid before the Senate	05/10/2005
S	Read 2nd time & passed to 3rd reading	05/10/2005
S	Vote recorded in Journal	05/10/2005
S	Three day rule suspended	05/10/2005
S	Record vote	05/10/2005
S	Read 3rd time	05/10/2005
S	Passed	05/10/2005
S	Record vote	05/10/2005
H	Senate passage reported	05/10/2005
H	Senate Amendments printed and distributed	05/10/2005
H	House concurs in Senate amendment(s)	05/16/2005
H	Text of Senate Amendment(s)	05/16/2005
H	View House Vote	05/16/2005
S	House concurs in Senate amendment(s)-reported	05/17/2005
H	Reported enrolled	05/17/2005
H	Signed in the House	05/18/2005
S	Signed in the Senate	05/18/2005
E	Sent to the Governor	05/18/2005
E	Signed by the Governor	05/30/2005
E	Effective on 9/1/05	05/30/2005

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OFFICE OF THE DISTRICT ATTORNEY

P.O. Box 1248, Austin, TX 78767
Telephone: 512 949-4600
Telefax: 512 925-9907

RONALD EARLE L.
DISTRICT CLERK

ROSEMARY LEHRER
DISTRICT CLERK

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P-1

January 6, 2006

Mr. David Studer, P.E.
9310 Meadow Branch Court
Houston, Texas 77095

Dear Mr. Studer,

Once again I would like to apologize for the mix-up over the fax you sent to our office. I received the copy you sent this morning. Unfortunately, some of the pages were not readable. The pages affected were:

1. The 1st page of your letter addressed to our Special Prosecutions Unit
2. The 5th page of your letter from number 16 thru the end of the page.
3. The 2nd page of Attachment 1
4. The 1st page of Attachment 2
5. All but the 1st two paragraphs of the letter to you in Attachment 3.
6. All of page 1 of attachment 5.

Please mail copies of the above missing pages of information to:

Sgt. Mary Chin, Investigator
Travis Co. District Attorney's Office
Special Prosecutions Unit
205 W. 6th St., 4th fl.
Austin, Texas 78701

As I understand the information I received, persons at the Texas Board of Professional Engineers knew of violations committed by a company named Technip and tried to prevent those violations from being cited or becoming public knowledge. They requested and obtained from the Legislature a change in the Act in order to accomplish that goal. In order to ensure they obtained the changes necessary, those justifying, lied about the reasons for the changes they were requesting. Please let me know if I have misunderstood.

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Texas House of Representatives
COMMITTEE ON GENERAL INVESTIGATING

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Chairman

February 6, 2006

Members:
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Terry Keel
Don Flynn

Ken Paxton
Vice Chairman

Dale Beebe Farrow, P. E.
Executive Director
Texas Board of Professional Engineers
1917 South IH 35
Austin, TX 78741

RE: Allegations of Dereliction and Corruption

Dear Ms. Farrow:

On January 13, 2006, I received a letter from David Studer alleging "dereliction and corruption of the Texas Board of Professional Engineers."

In his letter, Mr. Studer alleges that a Houston based corporation violated the Texas Engineering Practice Act by releasing drawings and analytical reports that were not prepared under the direct supervision of a licensed engineer and were issued without the seal of a licensed engineer, as required by state law because the corporation was asserting that they were exempt from the Act.

Mr. Studer states that the Enforcement Division opened a case file in July 2003 but was later closed in May 2005 as a result of the passage of HB 1817 (79R), with no disciplinary action taken on the corporation.

The House Committee on General Investigating and Ethics is requesting any and all documents, letters, memos, notes, etc., associated with the Houston based corporation Mr. Studer alleges violated state law. Also to be included are the seventeen items listed in Attachment I.

The committee is requesting that you comply with this request and have documents in our office by the close of business on February 14, 2006. Please be advised that your failure to produce any books, papers, documents, or tangible items, may result in contempt of a legislative proceeding, pursuant to Tex. Govt. Code §301.025, or issuance of writ of attachment, pursuant to Tex. Govt. Code §301.024, and you may be punished by a fine or confinement or both, Tex. Govt. Code §301.026.

Should you have any questions, please contact Roberta Bilsky, Chief Clerk at (512) 463-0780.

Sincerely,
Kevin Bailey
Kevin Bailey
enc: Attachment I

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U.S. Department of Justice
Federal Bureau of Investigation

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P-1

Washington, D. C. 20535-0001

March 7, 2006

Mr. David Studer
9310 Meadow Branch Court
Houston, Texas 77095

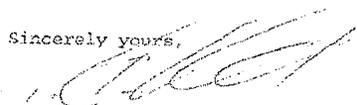
Dear Mr. Studer:

Your letter, dated January 19, 2006, to the Internal Investigations Section (IIS), Federal Bureau of Investigation (FBI), was forwarded to the Initial Processing Unit (IPU), IIS, for review. The IIS/INSD is the FBI entity responsible for investigating allegations of serious misconduct or criminal activity on the part of FBI employees.

In your letter, you allege that on January 17, 2006, you visited the FBI's Houston Division for the purpose of presenting evidence concerning possible violations of state and federal laws on the part of the current Governor of Texas and other state officials. During your visit, you state that you were rudely treated by the Houston Division Duty Agent. You advise that he was very uncooperative and demeaning to you and refused to accept or copy any of the documents that you offered as evidence of these violations.

Thank you for bringing this matter to my attention. I have forwarded a copy of your letter to the Special Agent in Charge of the FBI's Houston Division, and can assure you that it will receive appropriate attention.

Sincerely yours,


Timothy C. Campbell
Unit Chief
Initial Processing Unit
Inspection Division

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January 19, 2017

**Utilities Technology Council
Statement for the Record
Senate Committee on Energy and Natural Resources**

Nomination Hearing of the Honorable Rick Perry for Secretary of Energy

The Utilities Technology Council (UTC) appreciates the opportunity to comment on the Senate Committee on Energy and Natural Resources hearing entitled, "Nomination Hearing of the Honorable Rick Perry for Secretary of Energy." UTC is a global trade association representing for-profit and not-for-profit electric, gas, and water utilities on issues involving utility information and communications technology (ICT). We look forward to continuing to work with the Committee and the Department of Energy (DOE) on matters of vital importance to these critical infrastructure owners and operators.

UTC asks this Committee, in its examination of the nominee, to urge DOE to recognize that utility ICT is integral to reliable and secure utility services. While we understand that neither the Committee nor DOE has direct jurisdiction over most of the matters we raise below, these matters do directly impact our members' ability to provide their most fundamental service: safe, reliable and secure energy and water services. This Committee and DOE should play an integral role in aligning the ICT needs of energy and water utilities with U.S. energy security policies.

UTC recommends DOE support policies that promote access to suitable spectrum by utilities, pipeline companies and other critical infrastructure industries (CII), as described more fully below. Coupled with access to spectrum and promoting the deployment of fiber-based networks, UTC also believes that improved cybersecurity forms the basis of reliable, resilient, and secure networks to support the critical infrastructure needs of today and tomorrow, including smart networking, electric vehicles, and future applications. Utilities can also promote access to broadband services by leveraging their fiber-based networks and other infrastructure, and energy policies should support the deployment of broadband networks and services to unserved and underserved areas of the country by utilities. Increasing broadband access will promote economic growth, better health care and education in these unserved and underserved regions of America. Supporting utility ICT in all of these ways will also support interoperable communications during emergency response, which will help promote faster restoration of electric, gas and water services in the aftermath of hurricanes and other natural and manmade disasters.

I. Utilities Rely on Communications and Information Technology to Provide Safe, Efficient And Secure Electric Services to the Public.

As the international trade association for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries, UTC has a unique perspective into the ICT needs of utilities around the world. Created in 1948, UTC continues to advocate for policies that promote the development of telecommunications and IT to support the safe, reliable, efficient and secure delivery of utility energy and water services to the public at large. Our members include all types of utilities -- large investor-owned utilities that may serve millions of customers across

multi-state service territories, as well as smaller electric cooperative and municipal utilities that may serve a few thousand customers in rural areas and isolated communities.

Each of UTC's members own, manage and control extensive integrated IT and telecommunications networks that support their core services. These networks provide both voice and, increasingly, data services, which utilities use for dispatch as well as service restoration and for grid modernization (otherwise known as smart grid). Owing to the critical nature of the underlying essential services that they support, these communications systems must meet high standards for reliability and availability, many of which exceed the standards of commercial communications service providers. In addition, as utilities continue to deploy smart grid and similar applications into their networks, they need to extend the coverage and increase the capacity of their networks. We respectfully request the Committee to urge the nominee to ensure that policies developed by DOE recognize the importance of ICT to utility operations and U.S. energy security objectives.

II. Utilities Need Access to Spectrum for Reliable Wireless Communications.

In order to meet the escalating demand for wireless communications cost effectively, utilities have an increasing need for suitable spectrum, particularly in a frequency range below 1 gigahertz (GHz), to provide sufficient capacity and coverage to support data services. Currently, utilities do not have any dedicated spectrum, and many utilities have been forced to relocate out of some of their existing spectrum bands to make way for commercial wireless providers. They are also unable to compete with commercial wireless providers for access to additional spectrum that is auctioned. As a practical matter, this spectrum is cost-prohibitive, and the geographic areas of the license generally do not conform to utility service territories.

In order to meet their growing wireless communications needs, many utilities have turned to using unlicensed spectrum, but this is subject to power restrictions and interference from other users. Meanwhile, opportunities for access to additional licensed spectrum are limited to higher frequency bands, which means significantly poorer propagation, or necessary coverage, and significantly more infrastructure costs to deploy the networks. In short, finding available spectrum is a challenge, particularly spectrum with sufficient bandwidth and in a low frequency range to provide the capacity and coverage that utilities need in order to ensure the reliability of their ICT infrastructure.

That said, there are certain opportunities for utilities to access spectrum and we would encourage DOE to support efforts to promote opportunities for utilities to access these bands:

- The Federal Communications Commission (FCC) is considering providing utilities with access to spectrum at 4.9 GHz.¹ This spectrum would provide 50 megahertz (MHz) of capacity, using licensed spectrum that would be relatively free from interference. The spectrum would be shared with public safety, which could promote opportunities for interoperability during emergencies, as well as promoting partnerships with public safety to construct, operate and maintain communications networks.
- UTC and other industry organizations support sharing spectrum with federal government agencies to provide more favorable coverage and additional capacity for smart grid and other increasing communications requirements. One band that appears to be suitable for sharing is the 406.2-420 MHz band. Tests by the National Telecommunications and Information Administration (NTIA) in 2007 showed that the 406.2-420 MHz band was only being used three to five percent during the busiest times of the day in Washington,

¹ See Amendment of Part 90 of the Commission's Rules, *Report and Order and Further Notice of Proposed Rulemaking*, WP Docket No. 07-100, 24 FCC Rcd 4298 (2009) (*Report and Order*).

D.C., which was the most heavily used geographic part of the country for this band.² Not only does this band appear suitable for sharing, it is aligned with utility legacy communications infrastructure and there is standardized equipment that is commercially available that could be used in the band. As such, utilities could effectively use this band to meet their communications needs, if it was made available to utilities for sharing with the federal government.

- While utilities are interested in sharing spectrum, they need certainty that utility communications will be appropriately protected from interference and will have priority access to available capacity on shared networks, particularly during emergencies. For example, utilities are interested in sharing the 700 MHz public safety broadband network, but there is uncertainty over whether utility communications will have priority access on the network. As a technical matter, we believe that utilities can effectively share the 700 MHz public safety broadband network with public safety, because Long-Term Evolution (LTE) is capable of providing multiple and very granular levels of priority access. As a policy matter, sharing the band with utilities would promote public-private partnerships that would support network reliability, security and sustainability – all critical factors for both utilities and public safety when it comes to communications and making the 700 MHz Public Safety Broadband Network (PSBN) affordable and available, even in rural areas.

III. Utilities Are Deploying Fiber to Ensure Electric Reliability and Promote Broadband Access.

Utilities are challenged by the impact of the Internet Protocol (IP) transition, as carriers migrate from legacy circuit-switched, analog communications networks and services. This has imposed increased costs and reliability issues on utilities. Replacement services may not provide the same level of reliability as the legacy services, particularly with regard to back up power and latency. At the same time, replacement services may be much more expensive than legacy services. Finally, carriers may discontinue services altogether, particularly in underserved, rural and remote areas, which would threaten to cut off communications to critical assets, such as electric power substations and protective relaying systems.

In response, utilities are deploying fiber and microwave communications deeper into their networks to replace the leased lines from the carriers and to provide more reliable and robust communications to distribution and transmission critical assets. These fiber networks can be leveraged to support a variety of utility applications, including broadband services and smart grid deployment. This is an increasing trend among electric cooperative and municipal utilities, which is producing tremendous public interest benefits – including, the ability to attract new businesses that provide high-paying jobs and economic growth, improve education, and provide better access to health care. In addition, the deployment of these fiber networks has significantly reduced outages and restoration times, as well as improved the quality of utility services.

A tremendous example of these benefits is exemplified by the Electric Power Board (EPB) in Chattanooga, which deployed fiber-to-the-home networks to support broadband and smart grid. In the past three years, Chattanooga's unemployment rate has dropped to 4.1 percent from 7.8 percent and the wage rate has also been climbing. Chattanooga has also experienced the third highest wage growth of all

² National Telecommunications and Information Administration, *Spectrum Sharing Innovation Test Bed: Examining Dynamic Spectrum Access Sharing Techniques* (March 2009), visited at <http://www.its.bldrdoc.gov/media/33544/Drocellalsart2010.pdf>. See also National Telecommunications and Information Administration, NTIA Report TR-07-448, *Measurements to Characterize Land Mobile Channel Occupancy for Federal Bands 162-174 MHz and 406-420 MHz in the Washington, D.C., Area* (July 2007).

mid-size U.S. cities, and has added many high-tech jobs paying an average of \$69,000 a year. In its 2013 annual report³, EPB described the success of its smart grid deployments after a significant wind storm in 2012: 58 million customer minutes interrupted were avoided, \$1.4 million in restoration costs were saved, and the total time of the restoration effort was reduced by 1½ days. This underscores the substantial benefits that can be achieved by encouraging utilities to deploy communications networks and provide better service to people and businesses across America.

IV. Cybersecurity Is Strengthened by Reliable and Resilient Utility Communications and IT Systems.

One of the other benefits from better communications is improved cybersecurity. Today utility critical assets are increasingly interconnected with each other and therefore more vulnerable to cyber attacks. Cybersecurity threats are increasingly sophisticated and coordinated, including attacks from nation states. While it is impossible to prevent attacks from occurring, the risks can be mitigated through tools and process-based solutions, which include improving the reliability and resiliency of the underlying communications networks that support IT applications. Therefore, UTC believes that DOE can improve the security of utility infrastructure through an integrated energy policy that combines risk-based strategies and targeted outreach, coordination and collaboration with key stakeholders. DOE has played a key role in efforts to improve grid resilience and UTC believes it should continue to play this critical role.

UTC submits that it is in the national security interests of the country to protect utilities from physical and cyber threats by hardening utility communications networks and improving resilience to recover from attacks. A strong communications network is a strong defense against outside threats.

V. Conclusion.

In conclusion, we urge the Committee to request that the nominee work to align communications policy with energy policy. UTC believes that there is an opportunity to promote utility spectrum access and utility wireline networks as part of an integrated energy policy for affordable, reliable, and secure energy, which is essential to improving U.S. economic productivity, enhancing our quality of life, protecting our critical infrastructure, and ensuring our Nation's security.

UTC looks forward to working with the Committee, the nominee and the Department to develop policies that protect utility infrastructure through the implementation of improved utility communications.

³ Electric Power Board of Chattanooga. (2013). *EPB Annual Report 2013*, p. 14.