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 your 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 impeding 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 loans 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 makes 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 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 "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 of 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 Unite 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 competiveness 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 that 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.