

U.S. Senate Committee on Energy and Natural Resources
July 20, 2017 Hearing: Pending Nominations
Questions for the Record Submitted to Mr. Paul Dabbar

Questions from Ranking Member Maria Cantwell

Question 1: Which DOE program offices will fall under your supervision, if you are confirmed?

Answer: It is my understanding that Secretary Perry intends to align the Under Secretary positions to their traditional roles, consistent with the statutory designations of those roles by Congress. I am not familiar with any specific plans for reassignment of duties and without being an Administration official at this time, I do not think it is appropriate for me to speculate on how the functions might be reassigned.

Question 2: How will you ensure that research is coordinated between the Office of Science and other offices within DOE?

Answer: Coordination between the Office of Science and the other program offices is critical to ensure research is not being duplicated and is being done in the most efficient manner. If confirmed, I look forward to looking into this issue and ensuring communication throughout the Department.

Question 3: Do you agree the national laboratories are valued strategic partners of the Department?

Answer: Yes, our national laboratories are cutting-edge and lead the nation and world in innovative research. I plan to support and advocate for their work.

Question 4: What steps will you take to ensure that the national laboratories are viewed and treated by you and your staff as such?

Answer: I plan to visit all the Department of Energy Science labs 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.

Question 5: Will you commit to continue to value and support the important work of the 17 national laboratories?

Answer: Yes, I am committed to valuing and supporting the important work of the national laboratories.

Question 6: Will you commit to continue to implement the recommended reforms from the Commission to Review the Effectiveness of the National Energy Laboratories?

Answer: I have not been fully briefed on the CRENEL report, but look forward to learning more about the recommendations if confirmed.

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Question 7: What steps will you and the Department's leadership take to maintain a continuous and active engagement with the national laboratories?

Answer: If I am confirmed, I plan to visit all the DOE Science labs 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.

Question 8: What are your views on the DOE Office of Science and federal investments in basic research?

Answer: I support basic research and development to bring about technological breakthroughs that will allow for any number of new technologies. I am committed to both investing in energy innovation and using taxpayer dollars responsibly. If I am confirmed, I will explore ways to make technology and scientific development at the Department and the labs available to interested parties.

I also believe in engaging with the private sector. The Department can be a great resource in cooperating with the private sector to spur innovation, particularly by investing in cutting-edge research without duplicating the private sector efforts.

Question 9: Do you understand how the Department's science programs underpin all the other mission objectives of the Department?

Answer: Yes.

Question 10: What is your definition of sound science?

Answer: My definition of sound science is science that is fact-based, reliable, conforms with scientific methodology, and is un-biased.

Question 11: If confirmed, do you commit to protecting scientific research conducted and funded by the Department of Energy?

Answer: Yes, it is important that science be fact-based, reliable, conforming with scientific methodology, and un-biased.

Question 12: What are the research priorities for the Office of Science?

Answer: The President's FY 2018 budget request set the priorities for the Office of Science. From what I understand, those priorities focus on early-stage research and development.

Question 13: Do you commit to support the Scientific Integrity Policy and protect the scientific integrity of the work of the Department of Energy?

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Answer: Though I am not familiar with the Scientific Integrity Policy, should I be confirmed, I look forward to learning more. I strongly believe in the importance of objective research and the freedom of scientific inquiry.

Question 14: The budget proposes to eliminate ARPA-E, which advances high-potential, high-impact energy technologies that are too early for private-sector investment. Do you support eliminating ARPA-E?

Answer: I support the Department's shift to focus on early-stage research and development at our national laboratories to more efficiently and cost-effectively advance American dominance in scientific and energy research. Congress and the President will ultimately arrive at an agreement regarding the funding of ARPA-E, and the Department will implement it accordingly.

Question 15: The budget proposes to cut 17 percent of the Office of Science, which is the largest federal sponsor of basic research in the physical sciences. Do you agree that Federal investments in basic research are critical for maintaining U.S. leadership in science and technology and creating future jobs?

Answer: The President's FY 2018 budget request set the priorities for the Department. The budget focuses on basic, early-stage research and leaves more room for the private sector to invest in promising energy technologies.

Question 16: These proposed budget cuts would result in thousands of direct job losses of scientists and engineers working at the national labs, universities, research institutions, and businesses throughout the country. The innovation funded at DOE creates a pipeline for increasing competitiveness and job creation. Do you agree that DOE plays an essential role in energy research and development and will you commit to supporting increased funding for energy R&D conducted by the Department?

Answer: The Department of Energy does play an important role in energy R&D. The President's FY2018 budget request set the priorities for the Department. I commit to follow the appropriations law passed by Congress and signed by the President.

Question 17: Do you realize that the proposed budget cuts would result in over 17,000 scientist jobs lost from the national labs, universities, research institutions, and businesses throughout the country?

Answer: The President's FY 2018 budget request set priorities for the Department. I commit to follow the laws passed by Congress and signed by the President.

Question 18: During Secretary Perry's confirmation process, he said: "the Department can be a great resource in cooperating with the private sector to spur innovation, particularly by investing in cutting-edge research." And he further stated: "I hope to explore all the avenues available to

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transfer more of the great work performed at our national laboratories to the marketplace.” However, the budget proposal jeopardizes the very science and technology programs that Secretary Perry said he values, which undermines U.S. energy leadership and kills American jobs. What are you going to do to be a more effective steward and champion of the vital programs?

Answer: The President’s FY 2018 budget request set priorities for the Department, particularly with its emphasis on basic scientific research. I commit to follow the laws passed by Congress and signed by the President.

Question 19: How do you propose to address the infrastructure needs of the national laboratories?

Answer: Infrastructure issues are very important to the Department of Energy (DOE) national labs. If confirmed, I look forward to working with Congress and the DOE laboratories to find balanced answers to this issue.

Question 20: Do you agree that Office of Science user facilities are an important part of our nation’s scientific ecosystem?

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

Question 21: Will you commit to keeping Office of Science user facilities open and available to the broader scientific community and ensure that they operate at current levels and in an optimized fashion?

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

Question 22: Would you maintain DOE’s support for these innovative partnerships, such as Energy Frontier Research Centers and Energy Innovation Hubs, and equip them to continue to deliver the science and technology that we have seen flow from these investments?

Answer: I have not been fully briefed on the specifics of this issue. If confirmed, I look forward to learning more about these partnerships.

Question 23: What will be your plan to keep DOE’s high performance computing and exascale efforts at the world’s leading edge?

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Answer: From what I understand, the President's FY 2018 budget request increased funding for exascale computing. I believe achieving exascale computing is a priority for the Secretary and if confirmed, look forward to assisting the Department achieve this goal.

Question 24: Do you believe it is in our nation's best interest to continue to collect and make available to the scientific community the data and modeling capabilities necessary to understand how our climate is changing, and what it means for our national security, our infrastructure investments, our economy and our citizens?

Answer: I believe data and sound science are important in the Department's execution of its mission. If confirmed, I look forward to learning more about the Department's data collection processes and how scientific data can best be used to support the Department's work.

Question 25: Do you commit to protecting the climate science and data functions at DOE?

Answer: Should I be confirmed, I look forward to being briefed on the Department of Energy's science and data functions.

Question 26: How do you plan to engage the national laboratories in developing the strategic directions of the Department going forward?

Answer: The national laboratories perform important cutting edge research. If confirmed, I look forward to working with the laboratories to develop policies that will keep the United States a global leader in innovation.

Question 27: What steps will you take to ensure a coordinated approach to these challenges, and to include the national laboratories as key contributors?

Answer: As I stated above, if confirmed, I look forward to working with the national laboratories to further scientific advancement.

Question 28: Do you agree that technology transfer is an important component of DOE's work?

Answer: I have not been fully briefed on the Office of Technology Transitions but can commit to learning more about it. If I am confirmed, I will explore ways to make technology development at the Department of Energy available to interested parties. I hope to explore all the avenues available to transfer more of the great work performed at our national laboratories to the marketplace.

Question 29: What are your plans to encourage and increase the transfer of DOE technologies to strengthen U.S. economic competitiveness?

Answer: I have not been fully briefed on the Office of Technology Transitions, but can commit to learning more about the office. If I am confirmed, I will explore ways to make technology

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development at the Department of Energy available to interested parties. I hope to explore all the avenues available to transfer more of the great work performed at our national laboratories to the marketplace.

Questions 30: What steps will you take to ensure that DOE remains in compliance with the Energy Policy Act of 2005 that required DOE to create a Technology Transfer Coordinator to oversee the Department's technology transfer efforts, and also to establish an energy Technology Commercialization Fund to match private funds to advance promising technologies?

Answer: If confirmed, I look forward to being briefed on the role of the Technology Transfer Coordinator and the Technology Commercialization Fund.

Question 31: The budget proposes to eliminate the Weatherization Assistance Program and State Energy Program, which provide critical technical assistance and state-controlled competitive grant funding to all 50 states to support state- and county-level energy projects. Do you support eliminating the Weatherization Assistance Program and State Energy Program?

Answer: I support the President's FY 2018 budget request and recognize Congress' role in the budgetary process. If my nomination is confirmed by the U.S. Senate, I will ensure that the enacted budget is carried out.

Question 32: The budget proposal includes draconian cuts to the Office of Energy Efficiency and Renewable Energy, the Office of Electricity Delivery and Energy Reliability, and other applied energy programs. These programs invest in all stages of innovation cross a diverse portfolio of energy technologies to enhance economic competitiveness and secure America's long-term energy security. Do you agree with these cuts? Do you believe there is a Federal role in investing in R&D in these areas?

Answer: I support the President's FY 2018 budget request and recognize Congress' role in the budgetary process. I believe there is a federal role in investing R&D especially at the earliest stages.

Question 33: What is your view of where our country should be headed in the development and promotion of renewable energy? What types of technologies do you believe DOE should be supporting, and at what budgetary level?

Answer: I believe that the future for renewable energy is bright. During my time in the private sector, I saw firsthand the positive role renewables, such as hydro, wind, and solar, can have in meeting our nation's energy needs. In general, I believe that when industries can stand on their own – without government support – they should do so.

Question 34: Do you agree with the scientific consensus that the earth's climate is changing and is primarily caused by human activity?

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Answer: I believe the climate is changing. Some of it is naturally occurring and some from our activities.

Question 35: What actions should be taken to mitigate climate change and its impacts?

Answer: I believe a strong, vibrant economy is the best way to mitigate any impacts from climate change. If confirmed, I will work to implement policies at DOE that will empower innovative approaches and technologies to mitigate climate change.

Question 36: Can you commit to reviewing the findings and recommendations from the first and second installments of the Quadrennial Energy Review and consider continued support of the recommendations as they have received bipartisan support in the past?

Answer: I have not been fully briefed on the Quadrennial Energy Review (QER). If confirmed, I will seek more information about the value of the QER, including input from key stakeholders. I would certainly look to leverage the expertise of the DOE staff in any multi-agency energy review process.

Question 37: What is your view on the best way to address critical challenges that span DOE's diverse mission areas?

Answer: The Department of Energy has a vast and diverse mission executed by the tremendous career workforce and the national labs. If confirmed, I intend to work closely with my counterparts across the agency to ensure the program efforts are not only well defined at the outset but are also coordinated, well managed and aligned with the Department's mission.

Question 38: How do you view DOE's role in protecting the electric grid and energy systems from cyber attacks?

Answer: Energy cybersecurity is a critical issue and a significant part of DOE's mission. If my nomination is confirmed, I will work to build on the work of the Administration and Congress to give this the high priority attention it deserves.

Question 39: What steps will you take to ensure that cybersecurity efforts, to protect the grid and energy systems and also to protect DOE assets, are coordinated across the Department?

Answer: The reliability and security of our electric grid is very important to me, and protecting the grid is a crucial role of the Department. If confirmed, I look forward to a discussion about how to harden our grid and prioritize cybersecurity efforts. The Department of Energy should coordinate across the Department and other agencies, and with the private sector, to develop a seamless and coordinated plan for addressing major attacks. If confirmed, I would work to ensure that communication across the Department, between principals, 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.

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Question 40: What is your view on the role of DOE's national laboratories in DOE's cybersecurity efforts?

Answer: The national labs are the crown jewels of the nation; the security of our electric grid is very important to me and protecting it is a crucial role of the Department. If confirmed, I look forward to exploring ways in which the national labs can advance scientific development to harden our grid and prioritize cyber security efforts.

Question 41: What is your view of the role DOE's national laboratories should play in a U.S. government cybersecurity strategy?

Answer: I believe the national laboratories play a similar role across the federal government as they do in the Department. The national labs are the crown jewels of the nation; the security of our electric grid is very important to me and protecting it is a crucial role the Department. If confirmed, I look forward to exploring ways in which the national labs can advance scientific development to harden our grid and prioritize cyber security efforts.

Question 42: Do you think that voluntary cybersecurity guidelines that may not be practiced by all of the pipeline industry are sufficient to protect our national security assets from foreign state actors?

Answer: The reliability and security of our electric grid is very important to me and protecting it is a crucial role of the Department. If confirmed, I look forward to discussion about how to harden our grid and prioritize cyber security efforts. If confirmed, I would work to ensure communication and technology development efforts are strong.

Question 43: Should any additional measures be implemented to fortify pipeline cybersecurity?

Answer: Ensuring robust physical cybersecurity measures is vital to our national security. However, because I am not an Administration official at this time, I would defer this question to the Department of Energy.

Question 44: What steps will you take to make sure our energy networks are protected against the constant threat of cyberattack?

Answer: The reliability and security of our electric grid is very important to me and protecting it is a crucial role of the Department. If confirmed, I look forward to discussion about how to harden our grid and prioritize cyber security efforts. I would also work to ensure communication and technology development efforts are strong.

Question 45: Will you commit to maintain the efforts of the previous administration to keep Hanford safe and work on making Hanford safer for workers and the community?

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Answer: I am committed to cleaning up the Hanford site and will make it a priority if confirmed. Protecting workers and the surrounding communities is of paramount importance to me. I am committed to working with the State of Washington, its Congressional delegation, and other relevant stakeholders to clean up the Hanford site in a safe and responsible manner.

Question 46: Do you acknowledge the extreme risk to workers at the Hanford site and commit to improving worker safety and improving the worker compensation program and the Departments contribution the Energy Employees Occupational Illness Compensation Program?

Answer: As I stated above, I am committed to cleaning up the Hanford site and will make it a priority if confirmed. Protecting workers and the surrounding communities is of paramount importance to me. I am committed to working with the State of Washington, its Congressional delegation, and other relevant stakeholders to clean up the Hanford site in a safe and responsible manner.

Question 47: Do you acknowledge that the Department has a lot of work to do to improve how it helps sick workers? Will you commit to work with me to fix the Departments deficiencies and work with the unions and advocacy groups to get to the bottom of the problems plaguing the workers compensation program at Hanford?

Answer: Protecting workers and the surrounding communities is of paramount importance to me. I am committed to working with the State of Washington, its Congressional delegation, and other relevant stakeholders to clean up the Hanford site in a safe and responsible manner.

Question 48: Will you commit to working with us to ensure the workers at Hanford are receiving the proper training and equipment and that they are not exposes to chemical vapors?

Answer: Protecting workers and the surrounding communities is of paramount importance to me. I am committed to working with the State of Washington, its Congressional delegation, and other relevant stakeholders to clean up the Hanford site in a safe and responsible manner.

Question 49: Do you understand the moral and legal obligations as well as the urgency for the Department of Energy to properly fund and proceed with the cleanup effort at the Hanford site, including construction of the Waste Treatment and Immobilization Plant? In your respective role will you commit to providing the necessary resources to complete the construction of the direct feed low-activity waste facilities as well as the high activity waste facilities?

Answer: I am committed to cleaning up the Hanford site and will make it a priority if confirmed. I understand that the Department of Energy is actively working to meet its cleanup commitments while continuing key risk reduction and remediation activities at Hanford. I am committed to working with the State of Washington, its Congressional delegation, and other relevant stakeholders to clean up the Hanford site in a safe and responsible manner.

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Question 50: Do you understand that any change in the Department's approach to treating tank waste at Hanford must include input from the state of Washington before moving forward? This is critical to avoid costly litigation that will only hamper progress. Do I have your word you will work with the Washington delegation and state of Washington on the Hanford cleanup?

Answer: I am committed to cleaning up the Hanford site and will make it a priority if confirmed. I will work with the Washington Congressional delegation and State of Washington officials on the Hanford cleanup where appropriate. I will also work to ensure we are making sustainable, risk-informed, and fiscally wise decisions regarding our Environmental Management obligations at Hanford.

Question 51: Will you commit to including science and technology as an important component of cleanup work at EM sites, including Hanford?

Answer: Yes.

Question 52: Will you commit to ensuring that existing lab capabilities that support Hanford will be stewarded and utilized before investments are made in new capabilities?

Answer: If confirmed, I will work to ensure we are making sustainable, risk-informed, and fiscally wise decisions regarding our Environmental Management obligations at Hanford.

Question 53: As you may be aware, many cleanup contracts around the EM complex are expiring. Because much of the funding for investments in science and technologies come through the cleanup contractors, new EM contract mechanisms are needed that provide appropriate incentives to these contractors to invest in innovative technologies to reduce costs, something that is not reflected in existing contract mechanisms. What will you do to ensure that EM utilizes contract mechanisms to provide these incentives in contracts that it will be re-bidding in 2017 and beyond?

Answer: I recognize the importance of effective contract management and ensuring that the right incentives are built in. I am aware that the Department of Energy faces many challenges, among them project management and the accuracy of cost estimates, particularly for large projects. If confirmed, I will be certain to review the existing contract mechanisms and work with Secretary Perry to improve performance and management.

Question 54: Do you agree that grid modernization is an important component of DOE's mission?

Answer: Yes, Secretary Perry has stated his goal is to make modernizing the electric grid a priority and, if confirmed, I will ensure that the Department is focused on modernizing and improving the electric grid and the supply chain that supports it.

Question 55: What steps will you take to ensure that national laboratories remain a strategic and important part of the Department's grid modernization and cybersecurity work?

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Answer: While I value the national labs as the crown jewels of our nation and 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 initiatives or the program plan. If confirmed, I will ensure that the Department is focused on modernizing and improving the electric grid.

Question 56: What steps will you take to build upon the strong public-private partnerships that exist in this area, including the role of public/private demonstrations at the regional level to accelerate grid modernization, resilience and security?

Answer: 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 initiatives or the program plan. If confirmed, I will ensure that the Department is focused on modernizing and improving the electric grid and will utilize the national laboratories as appropriate.

Question 57: Do you agree that a priority for the Department is to ensure system reliability as energy sources continue to evolve?

Answer: Yes.

Question 58: Do you agree that investing in transactive controls increases the reliability of our nation's energy system?

Answer: 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, affordability and to fulfilling this important mission of the Department.

Question 59: What steps will you take to advance the reliability of our nation's energy system?

Answer: Secretary Perry has stated his goal is to make modernizing the electric grid a priority and, if confirmed, I will ensure that the Department is focused on modernizing and improving the electric grid. The Secretary has also commissioned an agency-wide study on electricity markets and reliability of the electric grid. If confirmed, I look forward to reviewing this study to gain a better understanding of the challenges facing the grid and how we can advance the reliability of the nation's energy system.

Question 60: Do you agree that energy storages is a critical component of a resilient, reliable grid? What steps will you take to move forward on energy storage if you are confirmed?

Answer: I do believe there is a role for storage. Secretary Perry has commissioned an agency-wide study on the electric grid. If confirmed, I look forward to reviewing this study to gain a better understanding of the challenges facing the grid and how energy storage can assist in strengthening the grid.

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Question 61: What is your view on energy efficiency standards? How will you meet the Energy Policy and Conservation Act (EPCA) and other statutory requirements for energy efficiency standards?

Answer: Energy efficiency has been a priority of Congress and DOE the Department of Energy has helped provide significant energy savings to many Americans. I have not been briefed on the full array of Departmental efforts in this area. If confirmed, I will commit to learning more about the Department's role in meeting America's energy efficiency needs.

Questions from Senator Bernard Sanders

Question 1: President Trump has suggested in the past that climate change is a hoax. Is the President correct? Is climate change a hoax?

Answer: I believe the climate is changing, and I concur with others who have stated that we must have some impact. I agree with Secretary Perry that the question is how we address it in a thoughtful way that further supports economic growth, improves affordability of energy, and American jobs.

Question 2: Do you agree with the vast majority of scientists that climate change is real, it is caused by human activity, and that we must aggressively transition away from fossil fuels toward energy efficiency and sustainable energy like wind, solar, and geothermal?

Answer: I believe that the climate is changing and that we have some impact on it. I believe that the costs and benefits of climate-related policies need to make sense for American families and the American economy.

Question 3: Do you agree with the vast majority of scientists that the combustion of fossil fuels contributes to climate change?

Answer: I believe the climate is changing and that we have some impact on it. If confirmed, I look forward to working with Congress and the experts in the Department to advance efforts to address climate change.

Question 4: Do you believe that DOE has a role in reducing the extraction and use of fossil fuels?

Answer: I support an "all of the above" approach smartly using our energy resources. The Department of Energy Organization Act states that "a strong national energy program is needed to meet the present and future energy needs of the Nation consistent with overall national economic, environmental and social goals." I believe in those goals, and, if confirmed, will follow the law.

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Question 5: If confirmed, how will you work to address climate change?

Answer: I believe the climate is changing and we have some impact on it. If confirmed, I look forward to getting a better understanding of these dynamics and helping the Department implement its policies in accordance with the law.

Question 6: DOE's Office of Science is the single largest funder of basic research in the physical sciences in the United States. What do you see as the most pressing priorities for the office?

Answer: The President's FY 2018 budget request refocuses the Department's energy and science programs on early-stage research and development at our national laboratories to advance American primacy in scientific and energy research in an efficient and cost-effective manner.

Question 7: What role should DOE play in advancing clean energy innovation in the U.S.?

Answer: The Department of Energy plays a critical role in early-stage, fundamental energy research and innovation. This early-stage research is critical to our efforts and is often used by our private sector in competing.

Question 8: Secretary Perry requested a study in April to ascertain whether wind and solar power are threatening electric grid reliability. It has been reported that the study found no such threat. Do you agree with the science that demonstrates wind and solar can in fact improve reliability while decreasing costs?

Answer: I support the Administration's "all of the above" energy strategy, and believe renewable energy has an important role in that strategy. Ensuring the reliability of the grid and energy supply chain is important to supporting the American economy. I have not seen any drafts of the internal study but look forward to reading it when it is released.

Question 9: The National Academy of Sciences was asked to conduct an assessment of the progress Advanced Research Projects Agency-Energy (ARPA-E) has made toward achieving its congressionally mandated mission and goals. It found that "there are clear indications that ARPA-E is making progress toward its statutory mission and goals." If confirmed, do you commit to fully supporting ARPA-E?

Answer: I support the Department's shift to focus on early-stage research and development at our national laboratories to more efficiently and cost-effectively advance American dominance in scientific and energy research. Congress and the President will ultimately arrive at an agreement regarding the funding of ARPA-E, and the Department will implement it accordingly.

Question 10: The president has called for "energy dominance," yet China leads the world in solar photovoltaic manufacturing. The largest markets for solar and wind are also in China. Do

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you believe the US is falling behind in the international clean energy market? Will competing with China to develop renewable technology be a priority if you are confirmed?

Answer: I understand that competing globally to develop not only renewable technology, but all kinds of energy technologies, will be a priority of the Department. This includes our efforts in exascale computing.

Question 11: When I met with Secretary Perry, we discussed subsidies for the fossil fuel industry. He reminded me that he made a campaign promise to “eliminate direct subsidies and tax credits” for energy. Will you commit to working with him to repeal all fossil fuel subsidies?

Answer: If confirmed, I commit to reviewing existing programs at DOE and working with Secretary Perry to ensure that they are in the best interests of the American people. Since many of the subsidies for various forms of energy are defined in laws, we will work with you and your colleagues in Congress to prioritize.

Question 12: President Trump’s FY 2018 budget proposal would revive the approval process for the Yucca Mountain nuclear waste site. If confirmed, will you commit to blocking the unsafe Yucca Mountain proposal and instead work to find a publicly-accepted, safe, long-term solution to this country’s significant problem of nuclear waste disposal?

Answer: If I am honored to be confirmed, I will be committed to following the law, including the Nuclear Waste Policy Act. The Nuclear Regulatory Commission is the final arbiter to determine whether Yucca Mountain is safe and should they approve it, I will implement any DOE activities in accordance with that direction. I recognize that the problem of nuclear waste management is extraordinarily complex and, if confirmed, am committed to working with all stakeholders to meet our commitments.

Question 13: Do you 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?

Answer: Yes.

Question 14: The Holman Rule allows any member of Congress to propose amending an appropriations bill to single out a government employee or cut a specific program. If confirmed, do you commit to opposing any acts of Congress to individually target DOE employees based on political whims?

Answer: I have briefly read about the Holman Rule, but would defer to the Office of General Counsel as to how any action under it should be applied.

Question from Senator Debbie Stabenow

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Question: Considering your familiarity with private financing, you surely understand that early-stage technologies are often too risky for private-sector investment. Hence, it is critical that we have public-private partnerships to bring these high-potential and high-impact energy technologies to market.

Since its inception in 2009, ARPA-E has provided over \$1.3 billion in grants and funding to more than 475 projects across the country. These projects have created over 30 new US companies; attracted more than \$1.25 billion in new, private funding; and advanced our national security, economic prosperity, and energy independence.

Recognizing ARPA-E's outstanding record and success rate, how can you justify the Administration's proposed elimination of ARPA-E and unprecedented cuts to DOE research and development programs?

Answer: The budgetary priorities are described in the President's FY 2018 budget proposal. The President's budget will spur world-leading energy innovation, while also reducing costs to the taxpayer. I support the President's FY 2018 budget request and recognize Congress' role in the budgetary process. If my nomination is confirmed by the U.S. Senate, I will ensure that the enacted budget is carried out.

Question from Senator Steve Daines

Question: If confirmed as Undersecretary for Science, you will play an important role in investment and research in new and emerging energy technology. It is important that the government does not pick winners and losers in energy technology, but instead promotes an all-of-the-above approach to energy research. Will you work to encourage research and investment in all forms of energy including coal and hydropower, as well as other fossil fuels, renewables and nuclear?

Answer: 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.

Questions from Senator Joe Manchin III

Question 1: As you know, the United States is entirely far too dependent on other nations for our supply of rare earth elements. These elements, also called "REEs" or "critical minerals", are used in countless consumer products such as cell phones, televisions, and medical equipment. And these elements are increasingly the subject of national security concerns because our supply is

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imported from China. In fact, the Congressional Research Service reports that “refined rare earth metals are almost exclusively available from China. The United States has the expertise but lacks the manufacturing assets and facilities to refine oxides into metals...” That wasn’t always the case. So, it’s time we took a hard look at how to redevelop a domestic industry for these. West Virginia University is doing a lot of great work on extracting these materials from coal mine byproducts. Once commercialized, these processes could be a critical means of standing up a domestic market for rare earth elements. In the FY 2017 spending bill, we included a \$15 million plus-up for R&D into the extraction and recovery of rare earth elements and minerals from U.S. coal and coal byproducts. I’ve introduced legislation – the Rare Earth Elements Advanced Coal Technology Act – which would authorize \$20 million a year in R&D funds for this type of research at DOE. That authorization provides certainty to researchers and sends a clear signal that we are serious about re-establishing a domestic market.

Mr. Dabbar, would you be willing to work with me to ensure this research continues and these researchers are given the resources they need?

Answer: Yes. Rare earth minerals research is a national security priority.

Question 2: I’d like to discuss the loan guarantee program at the Department of Energy for clean energy innovation which was established by the Energy Policy Act of 2005. Mr. Menezes, I believe you were a lead staffer on that bill. It has been proposed for elimination in the FY2018 budget, the House energy appropriations bill and the Senate subcommittee bill. This program was created by a Republican Congress on a bipartisan vote and signed into law by a Republican President – President George W. Bush. It has a 97.78% repayment rate. It has a demonstrated success of bringing advanced energy technology to market and makes money for the government.

What are your thoughts on why this program is being proposed for elimination despite its strategic importance to our nation’s energy goals?

Isn’t its elimination essentially a conclusion that there is no additional innovative project out there that the federal government should partner with the private sector on?

Answer: I understand that Mr. Menezes is also answering this question, but to the extent you are also asking me, should Congress eliminate future program’s funding, if confirmed, I will review how to make the best use of the remaining funds to continue successful programs.

Question 3: 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 bulk of DOE’s fossil energy research is centered at the National Energy Technology Laboratory (NETL). One of NETL’s facilities is in Morgantown, West Virginia, where NETL has worked with the private sector on the technologies we use to remove particulates and other harmful substances from coal. The National Energy Technology Lab in Morgantown, West Virginia is an extraordinary complex that is near and dear to my heart and employs 612 people. The budget proposed consolidation of the 3 lab facilities that make up

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NETL in a phased approach. I had the opportunity to sit down with Secretary Perry at NETL earlier this month and I was encouraged by his interest in the work that these world-class researchers have undertaken. 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, and how to integrate fossil fuel systems with renewable energy are vital to our energy future. So you can understand why the consolidation proposal may cause me and many West Virginians some heartburn.

If you could each tell me about an experience you had with our national labs that better qualifies you to help oversee them?

I would encourage each of you to visit the NETL Morgantown facility to get an up-close look.

Answer: I have approximately 20 years of private industry energy experience, and 20 years of service in the Department of Defense and Department of Energy. Like Secretary Perry, the more I learn about the work of the National Labs, the more I am impressed. I believe I will bring a strong mix of public and private sector experience required for this position because of my energy industry engineering expertise, and management depth and skills. If confirmed, my goal is to assist the Department of Energy and the nation to move forward the bounds of what we can accomplish together.

I would welcome the opportunity to visit Morgantown and work closely with you to continue the great work of the men and women at NETL.

Questions from Senator Martin Heinrich

Question 1: In 2012, the Blue Ribbon Commission's report on nuclear waste made very clear that the only viable path forward is through a consent-based approach to siting both temporary storage and permanent disposal facilities for spent nuclear fuel and high-level waste. Do you support consent-based siting of all nuclear waste facilities? What in your view would legally constitute local "consent?"

Answer: If I am honored to be confirmed, I will be committed to following the law, including the Nuclear Waste Policy Act. The Nuclear Regulatory Commission is the final arbiter to determine whether Yucca Mountain is safe and should they approve it, I will implement any DOE activities in accordance with that direction. I recognize that the problem of nuclear waste management is extraordinarily complex and, if confirmed, am committed to working with all stakeholders to meet our commitments.

Question 2: For several years I've worked to improve the process to transfer innovative technologies from DOE's national laboratories to the private sector. Do you support DOE's Office of Technology Transition's continuing implementation of tech transfer via the

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Technology Commercialization Fund? And do you agree that tech transfer should be a priority mission for the national labs?

Answer: I have not been fully briefed on the Office of Technology Transitions but can commit to learning more about it. If confirmed, I will explore ways to make technology development at the Department of Energy 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.

Questions from Senator Catherine Cortez Masto

Question 1: I want to make sure that all nominees for the Department of Energy understand the important relationship between renewable energy and economic development. How does the proposed DOE budget support its R&D programs that have helped develop clean energy technologies, improved national security, and grid reliability?

Answer: My understanding of the President's FY 2018 budget request is that it focuses on early-stage research and development that will allow the United States to remain a leader in science and technological innovation. Such leadership is important, not only for science, but for the economic growth of our nation.

Question 2: What do you think should be budgetary priorities for your office/Department?

Answer: The budgetary priorities are laid out in the President's FY 2018 budget request. I support the President's FY 2018 budget request and recognize Congress' role in the budgetary process. If my nomination is confirmed by the U.S. Senate, I will ensure that the enacted budget is carried out.

Question 3: Do you believe DOE and the National Labs' R&D and clean energy technology work is integral to the United States securing energy independence and staying globally competitive?

Answer: Yes.

Question 4: Are there areas where DOE should do more?

Answer: I am not an Administration official at this time; however, I commit to work with the Administration, the Secretary and Congress to prioritize the work of the Department.

Question 5: Why do you believe you are qualified for the position you are nominated for?

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Answer: I have approximately 20 years of private industry energy experience, and 20 years of service in the Department of Defense and the Department of Energy. I believe I will bring a strong mix of public and private sector experience required for this position because of my energy industry engineering expertise, and management depth and skills. If confirmed, my goal is to assist the Department of Energy and the nation in moving forward the bounds of what we can accomplish together.

Question 6: Secretary Perry has indicated that he may reassign functions in some of your offices. What do you believe should remain as a priority in your office?

Answer: It is my understanding that Secretary Perry intends to return the Under Secretary positions to their traditional roles, consistent with the statutory designations of those roles by Congress. I am not familiar with any specific plans for reassignment of duties and without being an Administration official at this time, I do not think it is appropriate for me to speculate on how the functions might be reassigned.

Question 7: Reassigned to another office?

Answer: It is my understanding that Secretary Perry intends to return the Under Secretary positions to their traditional roles, consistent with the statutory designations of those roles by Congress. I am not familiar with any specific plans for reassignment of duties and without being an Administration official at this time, I do not think it is appropriate for me to speculate on how the functions might be reassigned.

Question 8: Should anything be reassigned to another office?

Answer: It is my understanding that Secretary Perry intends to return the Under Secretary positions to their traditional roles, consistent with the statutory designations of those roles by Congress. I am not familiar with any specific plans for reassignment of duties and without being an Administration official at this time, I do not think it is appropriate for me to speculate on how the functions might be reassigned.

Question 9: Geothermal energy is one of the fastest growing industries in Nevada. In 2013, there were 29 geothermal power plants operating in nine of Nevada's seventeen counties. The Nevada Department of Energy has estimated that at least 6,000 jobs would be created through geothermal energy investment. The proposed cuts to DOE will not provide for adequate funding for the Geothermal Technologies Office to continue researching geothermal energy innovations. Do you believe investments in geothermal energy should be prioritized?

Answer: As I stated during the hearing, I recognize the value of geothermal energy. I support the President's budget request and, if confirmed, look forward to finding alternative solutions to advance these goals. I will also ensure that the will of Congress is carried out.

Question 10: Through its SunShot Initiative, DOE funds have been granted to universities,

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private companies, and national labs with the aim to make solar energy a low-cost source for all Americans. In 2012, DOE's SunShot program established five Regional Test Centers (RTCs) across the United States, including a location in Henderson, Nevada, to spur research and development in solar technology. These test centers are generating the data needed to attract financial investors and drive widespread solar energy deployment. But under President Trump's proposed budget there is a proposed 71% funding reduction. These cuts will hurt a thriving industry and clean energy jobs in Nevada. Do you agree with these proposed budget cuts and how would you prioritize programs like these moving forward if confirmed?

Answer: The President's FY 2018 budget request set the priorities for the Department. I commit to follow the appropriations law passed by Congress and signed by the President.

Question 11: The nominee for Deputy Secretary, Dan Brouillette, commented in his nomination hearing that if the science is not there that he would **not** support Yucca Mountain as a permanent repository. Yucca Mountain has serious safety and environmental concerns which are detailed in the hundreds of contentions filed by the state of Nevada, the most the NRC has ever considered. The contentions alone will take up to 4 years to adjudicate, but even if the site was greenlighted, it would take up to 50 years to build infrastructure in Nevada and across the country and to allow the waste to cool and be shipped through heavily populated communities. I know that you may not be engaged with the Yucca Mountain project, but I want to quickly note that even if you are involved in the most peripheral way, that data, sound science, and consent have to be at the forefront of this conversation. Do you agree with that statement?

Answer: All scientific decisions related to Yucca Mountain should be based on sound science. If confirmed, I will ensure that scientific decisions related to Yucca Mountain continue to be based on sound science.

Question 12: In Nevada, DOE has provided the essential funding for state-run energy programs that are helping local communities save taxpayer dollars. For example, Nevada's Pershing County School District is saving \$72,000 every year after installing rooftop solar panels on schools, while energy efficient lighting in the Carson City school district is saving close to \$80,000 a year for taxpayers. Do you believe federal funding cuts to state-run energy programs will harm state initiatives that save taxpayers money and create clean energy?

Answer: The budgetary priorities are described in the President's FY 2018 budget proposal. I support the President's FY 2018 budget request and recognize Congress' role in the budgetary process. If my nomination is confirmed by the U.S. Senate, I will ensure that the enacted budget is carried out.

Question 13: How would you prioritize these programs if you were to be confirmed?

Answer: The budgetary priorities are described in the President's FY 2018 budget proposal. I support the President's FY 2018 budget request and recognize Congress' role in the budgetary

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process. If my nomination is confirmed by the U.S. Senate, I will ensure that the enacted budget is carried out.