

FROM RANKING MEMBER SENATOR MURKOWSKI

Question 1.

Understanding that you are likely to focus primarily on nuclear security and non-proliferation, I also want to learn more about your experience with more traditional energy policy. Can you tell us the extent of your work on energy, at the federal level or elsewhere? If we come to a point where Secretary Moniz decides to leave the Department before you do, do you think you will be ready to serve as Acting Secretary?

Answer:

Indeed, I have worked for several decades on national security, including the safety, security, and effectiveness of our nuclear weapons and the laboratories and infrastructure that support them, and on preventing the proliferation of weapons of mass destruction. As you know, these are important dimensions of the Department of Energy's mandate. Furthermore, throughout my career, I have had responsibilities for broad, strategic portfolios, in which global energy issues have played an increasingly prominent role. As I stated in my testimony, I believe that America's domestic resources will be a major source of our domestic and international strength in the 21st century.

If confirmed, I look forward to working closely with you and your colleagues to advance Secretary Moniz's priorities, including: the "all-of-the-above" energy strategy for America's energy future, championing America's international energy leadership, working with our national laboratories, universities, and the private sector, and strengthening the Department's program and project management across the enterprise to deliver results and value for taxpayers. I also look forward to working closely with Secretary Moniz and learning from his vast experience throughout the energy sphere to ensure that I am well prepared to execute my duties as the Deputy Secretary, and, should I be called upon to do so, to serve as Acting Secretary.

Question 2.

Do you support GAO's recommendation for a formal documented process between DOE, FERC and EPA to interact with respect to the impact of EPA rules on electric reliability?

Answer:

I understand that greater coordination between the Department of Energy, FERC and EPA is an important element of successfully addressing any potential challenges relating to electric reliability.

Question 3.

What is your general view of our nation's current energy policy and how does Alaska fit in? Do you support an "all-of-the above" energy policy, and if so, what does that phrase mean to you?

Answer:

I support the Administration's "all-of-the-above" energy policy and am committed to advancing it. As you and I have discussed, I believe that Alaska has many unique opportunities and challenges — including many types of energy resources, such as hydropower, geothermal, oil and gas, as well as its high cost of electricity and dispersed population. I understand that this means that Alaska faces challenges that are distinct from those in the lower 48 states, and, if confirmed, I pledge to work with you to address those issues.

Question 4.

While you have focused on the nuclear side of DOE-related energy issues in your career, what technologies do you believe offer the greatest potential for economic renewable energy development over the next decade? In your opinion, what is the best use of federal dollars to advance energy development in the future?

Answer:

I understand that Secretary Moniz has focused on three main items within renewable energy development: lowering the cost of renewable energy technologies to achieve price competitiveness with traditional energy resources; accelerating the transition to a low-carbon economy; and ensuring that technologies are available to deploy renewables at scale. I share his commitment to integrating project management functions across Department of Energy offices and activities, as well as the private sector, academia and the national laboratories — all of which will ensure that we are using Federal funds wisely to advance our energy technology development.

Question 5.

Given your past experience in the NSC, do you believe energy production and energy exports are in the national interest?

Answer:

As I stated in my confirmation hearing, I believe we should be carefully evaluating all options to ensure that we deliver maximum value to the American consumer and retain America's competitive edge globally.

Under the Natural Gas Act, exporting LNG requires authorization from the Department of Energy. The export permit requires that the Department of Energy confirm that the export would be consistent with the "public interest". My understanding is that the Department of Energy has recently conditionally approved seven proposals for export of LNG one of which has been finally approved, and that additional proposals are also under consideration.

Question 6.

What are your thoughts on crude oil exports? I realize this is typically a Commerce Department area of jurisdiction, but crude oil is energy and you will be the Deputy Secretary of DOE if confirmed.

Answer:

As you have stated, current allowances and restrictions regarding crude oil exports are set by law and enforced by the Department of Commerce. I understand that Administration officials have said that they are taking an active look at the implications of growing domestic energy supplies, including the economic, environmental and security opportunities and challenges that it presents. This includes examining how our refining capacity matches with significant increases in domestic crude production.

Question 7.

Given your past experience, do you have any thoughts about the impact the unconventional oil and gas boom has had on U.S. national security and our broader position overseas?

Answer:

The natural gas boom is certainly an advantage for the United States. As Secretary Moniz has said, it is partially responsible for the decrease in CO₂ emissions that we have experienced over the last years and it is a bridge to a low-carbon future.

The increase in oil production has had very significant impact here at home in that for the first time in over 20 years we are producing more oil than we are importing. We are largely self-reliant for natural gas, which has had the side-benefit of freeing up international resources of gas for our allies and partners. While these efforts have had a positive impact on our energy security here at home, we have more to do across the energy portfolio to increase our energy security and assistance to our allies and partners, especially those facing manipulative pressure from other providers.

Question 8.

Former Alaska Senator Ted Stevens created the Arctic Energy Office in DOE to research a host of energy technologies of particular importance to the Arctic – from methods to develop heavy oil, to ways to recover methane hydrates from beneath the Arctic seafloor, to ways to improve electricity generation and transmission in rural areas. Unfortunately, that office closed four years ago and DOE now has only a couple of employees partially stationed in Alaska. As you may know, a 2008 USGS report found that 13 percent of the world's undiscovered oil and more than 30 percent of its natural gas likely lie under the Arctic. In light of this, and given the world's interest in Arctic issues, do you believe we need a greater emphasis on Arctic, cold-climate energy research?

Answer:

I am aware of the value that Alaska's congressional delegation places on energy technology research in the Arctic region, particularly its energy production potential. During my service in the Administration I have participated in the development of our Arctic strategy and, if confirmed, I look forward to learning more and working with you on this issue.

Question 9.

Given that Secretary Moniz is recused from any decision-making related to fusion energy-related activities at DOE, would you be able to assume a leading role on this issue? This is especially important in light of a recent GAO report that was quite critical of the serious management challenges and overall progress (or lack thereof) of the International Thermonuclear Experimental Reactor (ITER). I believe that a strong and effective leadership team at DOE is key to address this latter issue and the overall direction of the fusion program in this country.

Answer:

I agree that that strong and effective leadership at the Department of Energy is critical to the success of complex, including international scientific projects such as ITER. If confirmed, I look forward to assuming a leadership role to ensure that this project is well managed. Further, I am aware that a number of ITER's challenges pertain to participating countries meeting their international commitments for the project in a timely fashion as well as management issues that are currently being addressed. If confirmed, I look forward to being more fully briefed on ITER and identifying options to improve the management and governance of the project.

Question 10.

Secretary Moniz decided to create the office of the Undersecretary for Science and Energy, with the goal of better collaboration between those two crucial parts of DOE. What role do you see for yourself in ensuring that this goal is achieved, and can you share some of your thoughts on how to ensure the success of this strategy?

Answer:

In July 2013, Secretary Moniz and Deputy Secretary Poneman announced a Department reorganization creating the Office of the Undersecretary of Science and Energy position. The creation of the position reflects an understanding that the innovation chain is not linear, and that it requires feedback between and among programs responsible for different Department of Energy research and development (R&D) modes. The Department needs the ability to closely integrate and improve the ease of communication among basic science, applied research, technology demonstration, and deployment activities. If confirmed, I look forward to supporting this model that is designed to strengthen the innovation and impact of the Department of Energy's R&D efforts.

Question 11.

How will you seek to manage the nation's nuclear stockpile?

Answer:

The safety, security, and effectiveness of our nuclear arsenal and the vitality of the national laboratories and production facilities that support that effort must be a high priority for the Deputy Secretary of Energy. If confirmed, I expect to be able to hit the ground running on this issue of critical importance to our national security. I would build on my deep expertise in defense management and nuclear deterrence to ensure that the nation's nuclear stockpile is properly resourced and adapted to meet our emerging national military requirements.

Question 12.

How do you view the relationship between civilian nuclear waste and defense waste in terms of disposal prioritization? How should the overall issue of disposal be addressed?

Answer:

I am aware that the Obama Administration's efforts on nuclear waste disposal are guided by the Blue Ribbon Commission (BRC) on America's Nuclear Future's core recommendations and an Administration "Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste." The BRC was established to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, including all alternatives for the storage, processing, and disposal of civilian and defense used nuclear fuel, high-level waste, and materials derived from nuclear activities. Additionally, I am aware that the Administration's Strategy represents a basis for discussions between the Administration and Congress on a path forward for disposal of nuclear waste and provides near-term actions to be implemented by the Department of Energy pending enactment of new legislation. I appreciate your efforts, working with a bipartisan group of your colleagues, to introduce legislation on this topic. Guided by these efforts, if confirmed, I look forward to working diligently to address the needs of the back-end of the nuclear fuel cycle and setting it on a sustainable path.

Question 13.

As an Alaskan, I support hydropower in all forms. Over the long-term, I believe marine hydrokinetic technology offers considerable potential for low-cost renewable energy. At the same time, I believe further research can continue to improve conventional hydropower production. What is your view on the hydropower resources and how do you believe the Department should prioritize its water power budget?

Answer:

Hydropower is a key contributor today and is an important part of the Administration's "all-of-the-above" energy strategy. I believe that further innovation and advancement of hydropower technologies are both possible and necessary to: lower the costs of initial installations; minimize environmental impacts in a timely, low-cost way; encourage the development of new

hydropower generation, including micro-generation; and lower the costs of pumped hydro storage, which is an important storage option for other power generation technologies.

If confirmed, I look forward working with you on marine hydrokinetic issues.

Question 14.

What do you see as the future of Department-funded research into wind-turbine technology and for integration of wind into the electrical grid? In your view, should DOE's funding for wind-related activities increase, decrease, or stay at its current level?

Answer:

The research community studying climate science for several decades overwhelmingly agrees that we need to accelerate the transition to a low-carbon economy as an essential strategy for mitigating the most serious impacts of climate change. Energy infrastructure requires decades to turn over and the Administration is committed to developing and deploying affordable energy technologies at a scale sufficient to power and fuel the nation. Lowering the cost of low-carbon options such as wind is important to achieving that goal, and it is supported by the Department of Energy's R&D portfolio. If confirmed, I will support the Department's ongoing efforts to advance wind power as part of the Administration's "all-of-the-above" strategy.

Question 15.

It is estimated that America has enough methane hydrates, if we can access them safely, to power our energy needs for a millennium. But, while the Department funded a 2012 test in Alaska to prove that hydrates can be made to "flow," it has taken considerable effort to get the Department to follow up on that test with further testing and research. Given that Japan is considering hydrates as a major future source of its energy needs, how do you view the Department's role in methane hydrate research? How much funding should be provided to support DOE's methane hydrate efforts?

Answer:

Although I have not yet been briefed on the role of methane hydrates in the Department's research and development portfolio, it is my understanding that the Office of Fossil Energy and the National Energy Technology Lab support a number of research projects in unconventional natural gas production, including projects focused on the potential of methane hydrates.

If confirmed, I will expeditiously request a briefing on the Department of Energy's methane hydrates research portfolio and pledge to work with you on this issue.

Question 16.

In Section 803 of the 2007 Energy Independence and Security Act (EISA), Congress authorized a matching grant program to help fund the capital costs of all types of renewable energy projects in high-cost areas like Alaska. The program, however, was not Alaska-specific but rather national in scope. What is your view on DOE's role in general to spur the development of renewable projects and on Section 803 of EISA in particular?

Answer:

While I am not familiar with the specific provision of the Energy Independence and Security Act, I support the continued research, development and deployment efforts associated with renewables as part of the Administration's "all-of-the-above" strategy. Specifically, I will support the Secretary's priorities of lowering the cost of renewable technologies to achieve price competitiveness with traditional sources of energy; accelerating the transition to a low-carbon economy; and assuring we have the key enabling technologies needed to enable renewables deployment at scale

If confirmed, I will request a briefing on Sec. 803 and look forward to working with you to address your concerns.

Question 17.

Former Secretary Chu proposed an expanded role for the Power Marketing Administrations (PMAs) to be directed by the Department of Energy and without consultation with Congress. After 166 members of Congress wrote to then-Secretary Chu to take issue with this approach, Deputy Secretary Poneman did not pursue many of the initiatives set forth in the so-called "Chu memorandum." If confirmed, would you pursue former Secretary Chu's proposed initiatives and expand the PMAs' mission? Please explain your approach to the PMAs and specify if and how you would change any PMA-related management.

Answer:

I am aware of Secretary Chu's March 16, 2012 memo. If confirmed, I will be fully briefed on the Power Marketing Administrations and their unique challenges and opportunities. Further I will abide by the governing statutes of each PMA, and I will work with you and the stakeholders in each PMA region to ensure that the PMAs are operating as efficiently and effectively as possible while following all Federal laws and applicable regulations.

Question 18.

I have been told the Senate Defense Appropriations Subcommittee has included the below language in the base text of their bill:

SEC. 8121. Notwithstanding section 1552 of title 31, United States Code, funds made available under the heading "OPERATION AND MAINTENANCE" under the heading "DEPARTMENT OF DEFENSE" under title III of division A of Public Law 111-5 (123 Stat. 132) and any funds made available for Fossil Energy Research and

Development by the Department of Energy under title IV of the same division of Public Law 111-5 (123 Stat. 139) shall remain available for expenditure, until such funds have been expended, for the purpose of liquidating the obligations.

Regarding this language, please clarify:

- a. If the DOE requested this language.

Answer: To the best of my knowledge, the Department of Energy did not request this language.

- b. If the language is placed into law, would DOE interpret the language to only allow the funds to flow to the Future Gen 2.0 project, or would other fossil energy demonstration projects be eligible to use the funds?

Answer: I am aware that it is the Department of Energy's understanding that this language would apply to all of the fossil energy demonstration projects authorized by P.L. 111-5.

- c. If DOE would allow other fossil energy demonstration projects to use the funds provided by the referenced language, how would DOE prioritize allocation of the funds to projects? What criteria would be used to determine funding eligibility?

Answer: I am aware that it is the Department of Energy's understanding that this language would only apply to the funding that has already been obligated to projects authorized by P.L. 111-5.

Question 19.

Regarding Clean Coal demonstration programs generally, what are the "un-costed balances," if any, with respect to funds obligated but not expended for clean coal demonstration projects? What plans are there to assure that the work underway in such projects will be completed or the benefits of the work already completed will be preserved if the projects are not completed?

Answer:

I understand that the Department of Energy is focused on working to complete clean coal demonstration projects that are currently underway. I do not know what steps may be taken for projects should they not be completed, but if that should happen, and if I am confirmed, I would make every effort to maximize the value of the investment for the taxpayer.

Question 20.

Regarding the National Energy Technology Laboratory (NETL), and given the comparative success of NETL programs, what assurances can you provide about leadership and

programmatic stability in light of recent changes in the Office of the Director? Do you anticipate any significant changes for the lab and its programs as a result of the appointment of a new director?

Answer:

I am aware that there will be a new Director of NETL in the near future, but I am unaware of any significant changes planned for the lab programs. If I am confirmed as Deputy Secretary, I will work with NETL to ensure that the transition to new leadership supports the continuing execution of its important mission.

FROM SENATOR JOHN BARRASSO

WITNESS NAME: Dr. Sherwood-Randall

Question 1.

Earlier this year, the Department of Energy (DOE) gave conditional approval to the Jordan Cove LNG export terminal. This terminal would enable natural gas producers in Wyoming and other states to export LNG to markets in Asia.

DOE's Conditional License Order for the terminal reads as follows: "To the extent U.S. exports can diversify global LNG supplies, and increase the volumes of LNG available globally, it will improve energy security for many U.S. allies and trading partners."

Immediately afterward, the Order states: "As such, authorizing U.S. exports may advance the public interest for reasons that are distinct from and additional to the economic benefits identified in the [NERA] LNG Study."

Do you agree that LNG exports from the United States, including LNG exports to Asia, would improve the energy security of our allies and trading partners and promote the public interest here in the United States? Please provide a "yes" or "no" answer. If your answer is "no," please explain why you disagree.

Answer:

Yes, based on the briefings I have received from the Department of Energy, I agree.

Question 2.

On Tuesday, David Goldwyn, a former Special Envoy for International Energy Affairs at the State Department, testified before the Foreign Relations Committee.

He stated that: "A clear signal from the U.S. that LNG exports will be available to European allies for future purchase would put immediate pressure on Russia's market share and export revenues."

You are an expert on Russia and Ukraine. You have written extensively on these countries. You have also served in prominent roles at the Department of Defense and on the National Security Council where you helped set policy related to these countries.

Do you agree with Mr. Goldwyn that—"A clear signal from the U.S. that LNG exports will be available to European allies for future purchase would put immediate pressure on Russia's market share and export revenues"? Please provide a "yes" or "no" answer. If your answer is "no," please explain why you disagree.

Answer:

We take the energy security of our allies and partners in Europe very seriously. The Obama Administration has been working with European governments to strengthen energy security and diversify supplies.

The Department of Energy has conditionally approved U.S. LNG export facilities with 9.3 billion cubic feet per day of capacity that can be exported both to countries with which we have Free Trade Agreements and to those where we do not, such as European countries. These volumes are significant — to put it in perspective, these volumes are more than the total amount of LNG that Europe currently imports and equal to over half the gas Europe currently imports from Russia.

As I understand it, the first project to export U.S. LNG is not expected to come online until late 2015/early 2016. Nevertheless, we are committed to putting gas onto the global market in a way that is consistent with U.S. public interest because we know that increased global supplies help our European allies and other strategic partners.

Question 3.

In over three and a half years, DOE has approved only one application to export LNG. It has given conditional approval to six other applications. Meanwhile, DOE is sitting on 26 pending applications, the majority of which have been pending for more than a year.

In light of what is taking place in Europe, do you believe the Administration is acting fast enough on pending LNG export applications? If not, what steps, if any, would you take to expedite the processing of LNG export applications? Please be specific.

Answer:

The Natural Gas Act requires the Department to conduct a public interest determination for LNG exports to non-Free Trade Agreement countries. An important factor in that analysis is international considerations. I understand that the Department recently proposed a change in LNG authorization procedure that would streamline the approval process by eliminating the step of issuing conditional commitments. By eliminating this step, the Department of Energy can turn immediately to the projects most ready to proceed with construction. I believe that this is an important step in streamlining the process. If confirmed, I will ensure that the Department of Energy conducts its review of the export applications as expeditiously as possible consistent with the public interest.

Question 4.

DOE has proposed to suspend issuing conditional licenses altogether. Instead, it has proposed to issue licenses after the Federal Energy Regulatory Commission completes the environmental review process for projects. If DOE decides to stop issuing conditional licenses and you are

confirmed, would you support DOE making exceptions if the applicant can show that its project would not be financially viable without a conditional approval?

Answer:

I am not yet at the Department and not privy to discussions between the Department of Energy and the applicants, but I understand the latest proposed change to eliminate conditional approvals was done in response to changing needs in the marketplace. I understand that the proposed change was put out for public comment, but I do not know what those comments have said about the elimination of conditional approvals. If confirmed, I would like to review what the Department learned through the comment period before considering any further changes in procedure, and I would be pleased to discuss this with you at that time.

Question 5.

For years, DOE has transferred its excess uranium inventories to other parties in exchange for cleanup services. I have repeatedly expressed my opposition to these transfers. DOE's transfers distort America's uranium market and hurt our uranium producers.

Since May 2012, the Department of Energy's transfers have contributed to about a 50 percent drop in the spot price of U3O8. Between 2011 and 2013, the Department of Energy's transfers have contributed to a 19 percent drop in employment in uranium exploration and mining.

On May 15 2014, Secretary Moniz issued a Secretarial Determination authorizing additional uranium transfers. In his order, Secretary Moniz included a finding that these transfers would not have "an adverse material impact" on America's uranium mining, conversion, and enrichment industries. With all due respect to the Secretary, his finding is hard to believe.

Last week, I — along with 17 other members of Congress — sent Secretary Moniz a letter about his order (attached). We asked him to provide the basis for his finding that DOE's transfers will not have an adverse material impact on America's uranium mining, conversion, and enrichment industries. To date, DOE has refused to disclose this information.

When can we expect the Secretary to disclose the requested information?

Answer:

I am aware of the recent letter that you sent to Secretary Moniz, and appreciate your having shared it with me as well in advance of my confirmation hearing last week. As I am not yet at the Department, I do not have precise knowledge regarding the schedule for Secretary Moniz to provide you with the requested information.

Question 6.

Do you believe that it is important that the United States have strong uranium mining, conversion, and enrichment industries? If so, please describe what steps, if any, that you would

take, if confirmed, to mitigate the impact that DOE's uranium transfers have had on America's uranium mining, conversion, and enrichment industries. Please be specific.

Answer:

I agree it is important for our country to have a strong domestic uranium industry. If confirmed, I will work to ensure that any uranium transfers continue to comply with applicable statutory obligations and are done in a transparent manner. I will also work to ensure that implications for the domestic uranium industry are examined as part of any future determination on this issue. Finally, I will work across the Department to promote scientific and technical innovation as appropriate in relation to the domestic uranium industry.

Question 7.

In 2008, DOE set forth its Excess Uranium Inventory Management Plan ("Plan"). The Plan was developed in consultation with the Nuclear Energy Institute (NEI), which represents uranium mining, conversion, and enrichment industries as well as electric utilities. After the uranium mining, conversion, and enrichment industries negotiated a compromise with the electric utilities on the question of DOE's excess uranium transfers, NEI made recommendations to DOE for inclusion into its Plan.

Specifically, DOE agreed to gradually release its excess uranium inventories into the market over a period of five years, at which point DOE agreed to limit annual uranium transfers to 5 million pounds or 10 percent of annual domestic fuel requirements. DOE's collaborative approach to disposing of its excess uranium inventories was the principal reason the uranium mining, conversion, and enrichment industries and electric utilities supported the Plan.

If confirmed, will you commit to bringing together the uranium mining, conversion, and enrichment industries as well as electric utilities and restart formal discussions to develop an excess uranium management plan which will be supported by these stakeholders?

Answer:

It is my view that the Department should be open to receiving input from affected stakeholders. If confirmed, I will work to ensure that as future Excess Uranium Inventory Management Plans are developed, the Department has the opportunity to hear from affected stakeholders, including those you mention.

Question 8.

A. If confirmed, will you commit to updating the Committee on a regular basis about the status of the cleanup of the Portsmouth Gaseous Diffusion Plant? B. How much money has DOE spent to date on the cleanup efforts at this site? C. How much money does DOE estimate the remaining cleanup will cost, assuming all of the remaining work is funded with appropriated dollars, in fiscal years 2015, 2016, 2017 and 2018.

Answer:

- A. If confirmed, I will update the Committee as requested about the status of the Portsmouth Gaseous Diffusion Plant.
- B. I understand that the Department has spent approximately \$3 billion through the end of FY2013 on the cleanup of the Portsmouth site.
- C. I understand that the FY2015 budget request for Portsmouth is \$160 million, which is approximately \$24 million above the FY2014 appropriation of \$135.8 million. As I am not yet at the Department, I do not have details on the estimated cost of cleanup for fiscal years 2016-2018.

Question 9.

I understand DOE has entered into contracts with other parties to transfer uranium in exchange for cleanup services at the Portsmouth Gaseous Diffusion Plant.

- A. When was the most recent contract signed and what period of time does it cover?

Answer:

I understand from the Department of Energy that Fluor-B&W Portsmouth was awarded a contract in August 2010, which covers 10 years.

- B. Do the contracts include any language that would render them null and void should the Secretary make a finding that any additional uranium transfers would have an adverse material impact on America's uranium mining, conversion, and enrichment industries?

Answer:

As I am not yet at the Department, I do not have access to the details of the contract in question. If confirmed, I will be briefed on the relevant provisions.